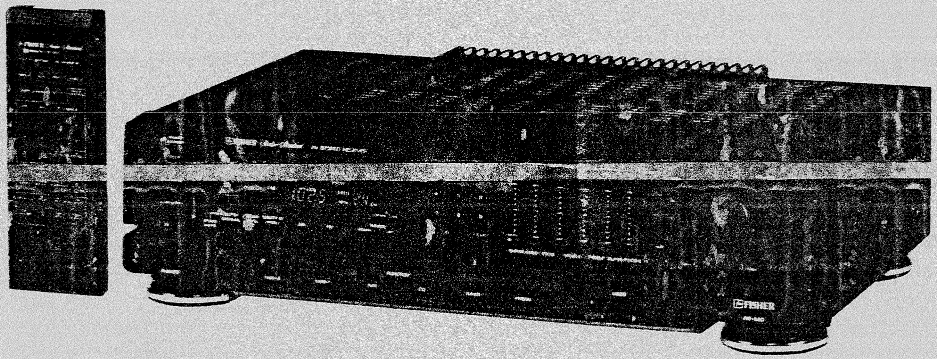
SERVICE MANUAL

FISHER

RS-580

(EUROPE)

AV Stereo Receiver with RRS-580 Wireless Remote Control



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REFERENCE No. WM-570703

SPECIFICATIONS

RRS-580 Wireless Remote Control	44 Functions

POWER AMPLIFIER SECTION

Minimum RMS sine wave power per channel within the stated bandwidth at no more than the stated distortion and with an 8Ω load	55Watts
Power Bandwidth	20Hz ~ 20kHz
Total Harmonic Distortion	0.07%
I.M.Distortion	0.07%
Speaker Damping	>30

PREAMPLIFIER SECTION

Frequency Response	
Phono (RIAA)	±1dB
AUX (20Hz ~ 20kHz)	±1dB
Input Sensitivity and Impedance	
Phono	2.5mV/47kΩ
Tape Monitor 1,2/Video 1	150mV/47kΩ
AUX/CD/Video 2	150mV/47kΩ
Phono: Maximum Input Capability	150mV
Graphic Equalizer	
63Hz	±10dB
250Hz	±10dB
1kHz	±10dB
4kHz	±10dB
16kHz	±10dB
Loudness Contour (100Hz/10kHz)	+8dB/+4dB
Hum and Noise (IHF Short Circuit, A Network)	
Phono	70dB
Tape Monitor 1,2/Video 1	90dB
AUX/CD/Video 2	90dB

VIDEO SIGNAL SECTION

Video Input/Output Level and Impedance	1Vp-p/75Ω

FM SECTION

Usable Sensitivity	
Monaural	1.0μV/0dBf
46dB Quieting Sensitivity	
Monaural	3.5μV/11dBf
Stereo	31μV/30dBf
Signal-to-Noise Ratio	
Monaural	70dB
Stereo	65dB
Capture Ratio	1.5dB
Alternate Channel Selectivity(±400kHz)	60dB
Image Response Ratio	85dB
Spurious Response Ratio	80dB
IF Response Ratio	80dB
AM Suppression Ratio	60dB
Total Harmonic Distortion at 50dB Quieting	
Monaural	0.4%
Stereo	0.5%
Total Harmonic Distortion at 65dBf	
Monaural (100Hz/1kHz/6kHz)	0.3/0.3/0.4%
Stereo (100Hz/1kHz/6kHz)	0.4/0.4/0.5%
Stereo Separation	
(100Hz/1kHz/10kHz)	40/40/35dB
Sub-Carrier Rejection (19kHz/38kHz)	30/50dB
Audio Frequency Response	
(20Hz ~ 15kHz)	±3.0dB

AM SECTION

Usable Sensitivity	800μV/m
Selectivity	35dB
Signal-to-Noise Ratio	55dB
Image Response Ratio	38dB
IF Response Ratio	50dB

GENERAL

Timer: Power off delay	≦90 minutes Selectable, 10-minute steps
Timer: Power on	Maximum 23 hours and 55 minutes Selectable, 5-minute steps
Power Requirements	220VAC
(50/60Hz)	300Watts
AC Outlet (Switched)	2
Dimensions (WxHxD)	440 x 110 x 350mm
Weight (Approximate)	7.1kg

— Specifications and design are subject to change without notice. —

CAUTION ON RF ADJUSTMENT

This model uses a microprocessor for memory preset control for the various bands.
This function has been used to preset frequency points for the different bands to permit adjustment and make it possible to check the function of the microprocessor. To use this supplemental function, Press and hold down the TUNER Function button for approximately 5 seconds so that the frequency points show in the following table before beginning adjustment. The following table shows the initially preset frequencies.

	Station Memory Frequency Points									
Key No.	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**
Frequency	87.5MHz	108MHz	88MHz	98MHz	522kHz	1611kHz	603kHz	1404kHz	999kHz	87.5MHz

AM TUNER ALIGNMENT

AM ALIGNMENT – Band Selector switch to AM position.
Maintain generator output as low as possible for suitable indication.

Note: Perform this alignment after FM Tuner Alignment.

ITEM	GENERATOR	DIAL SETTING	INDICATOR	PROCEDURE
1. AM IF ALIGNMENT	Connect 450kHz Radio IF Genescope output to AM ANT and ground. Adjust output level to 70dBμV.	Position of non-interference Minimum Frequency.	Connect Radio IF Genescope input to TP107 and TP108.	Adjust AM IFT (T106) for maximum gain and best symmetry. Keep signal low enough for noise on response.
2. AM RF FREQUENCY COVER ALIGNMENT (522kHz)	Do not connect generator.	Set Preset STATION button to "05" position. Set to 522kHz.	Connect DC Voltmeter to TP105 and ground lead to chassis.	Adjust AM OSC Coil (T105) until DC Voltmeter reads 0.8V ~ 1.3V.
3. (1611kHz)	Same as above.	Change Preset STATION button to "06" position. Set to 1611kHz.	Same as above.	Check DC Voltmeter for Indication 7.0V ~ 9.0V.
Note: Repeat the adjustments in Items 2 and 3. Then, confirm that each voltage becomes 1.0V to 8.0V at receiving frequency of 520kHz to 1710kHz. **(See Table 1)**				
4. AM RF TRACKING ALIGNMENT (603kHz)	Connect Standard Loop Antenna to output terminal of AM RF Signal Generator. Place Loop Antenna 60cm away from Loop Antenna (Unit). Generator Setting to 603kHz or 1404kHz. Modulate with 400Hz (30 % modulation).	Set Preset STATION button to "07" position. Set to 603kHz.	Connect AC VTVM and Oscilloscope to Tape REC OUT Terminals.	Adjust AM Antenna Coil (T102) for maximum gain output.
5. (1404kHz)		Change Preset STATION button to "08" position. Set to 1404kHz.	Same as above.	Adjust AM Antenna Trimmer (TC103) for maximum gain output.
Note: Repeat the adjustments in Items 4 and 5. Then, confirm there is no tracking error.				
6. AM AUTO STOP SENSITIVITY ADJUSTMENT	Change generator setting to 999kHz and output level to 60dBμV/m.	Set Preset STATION button to "09" position. Set to 1000kHz.	Front Panel TUNED Indicator Display.	Adjust VR102 until the TUNED Indicator partly light up.

Use a screwdriver with plastic grip for all adjustments.

AM Frequency Cover Range
Tuning Voltage Value at TP105
(Table 1)

	522kHz	1611kHz
Minimum	0.8V	7.0V
Typical	1.0V	8.0V
Maximum	1.3V	9.0V

FM TUNER ALIGNMENT

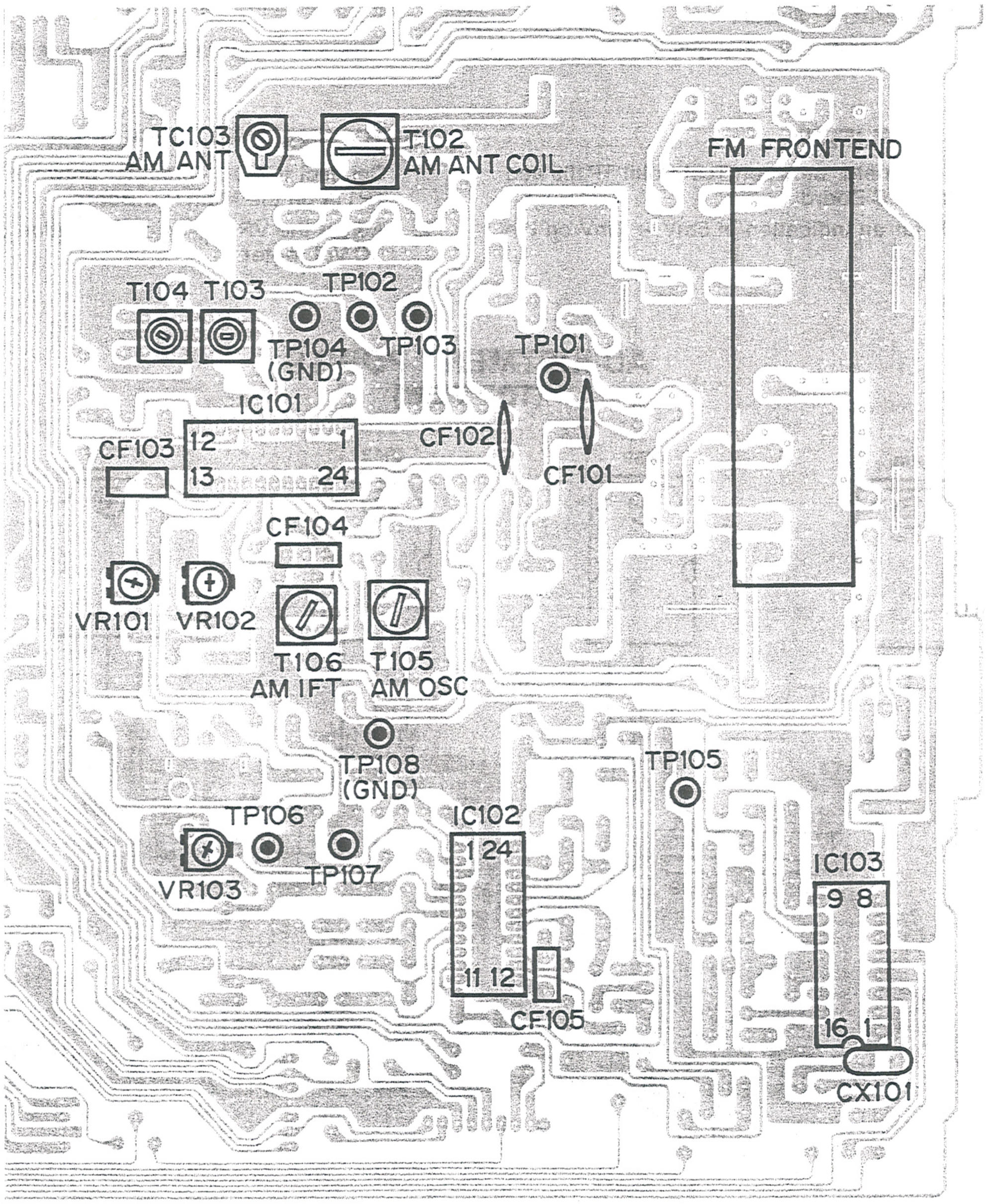
FM ALIGNMENT – Band Selector switch to FM/ST(MUTE) position.

ITEM	GENERATOR	DIAL SETTING	INDICATOR	PROCEDURE
1. FM IF S-CURVE ALIGNMENT	Connect 10.7MHz Radio IF Genescope output to TP101 and ground lead to chassis. Use 5pF capacitor in series with generator output lead.	Position of non-interference Minimum Frequency.	Connect Radio IF Genescope input to TP106 and ground lead to chassis.	Adjust FM DET 1 Coil (T103) and FM DET 2 (T104) so that S-wave from becomes symmetrical.
2. DETECTOR ADJUSTMENT (MINIMUM T.H.D.)	Connect FM RF signal generator through FM Dummy Antenna to FM Antenna terminals. Set generator to 98MHz ±2kHz. Modulate with 1kHz to provide 40kHz deviation. Setting generator with attenuator output level for 60dBμV.	Set MODE switch to FM MONO position and Preset STATION button to "04" posion. Set to 98MHz.	Connect DC Voltmeter across TP102 and TP103.	Adjust FM DET 1 Coil (T104) until DC Voltmeter reads 0V ±50mV.
			Connect Harmonic Distortion Analyzer to REC OUT.	Adjust FM DET 2 Coil (T103) for minimum gain and best linearity.
Note: Repeat Step 1 (FM DET 1 Coil T104) and 2 (FM DET 2 Coil T103) until optimum alignment is reached.				
3. FM STEREO SIGNAL SEPARATION CONTROL	Connect FM Stereo SG to FM Antenna terminals. Set generator output level to 60dBμV at 98MHz stereo signal (1kHz Main-53.3%, pilot-9%) from LEFT channel.	Same as above Set Mode switch to ST(MUTE) position.	Connect AC VTVM and Oscilloscope to (Right channel) REC OUT.	Adjust VR103 for minimum output.
	Same as above for RIGHT channel.		Connect AC VTVM and Oscilloscope to (Left channel) REC OUT.	
4. FM MUTING AUTO STOP SENSITIVITY ADJUSTMENT	Set generator to 98MHz. Adjust attenuator output level to 14dBμV.	Same as above.	Front panel TUNED Indicator Display.	Set Mode Switch to ST(MUTE) Adjust VR101 until the TUNED Indicator partly light up.
Note: Decrease the output level of ATT and confirm that the wave form disappears. Increase the output level of ATT again and confirm that the input level meets the specifications sufficiently when the wave form has appeared.				

Use a screwdriver with plastic grip for all adjustments.

AM/FM TUNER ADJUSTMENT POINTS

(TOP VIEW)


TC103
AM ANT
T102
AM ANT COIL
FM FRONTEND
T104
T103
TP102
TP104
(GND)
TP103
TP101
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1
13
24
CF102
CF103
CF101
CF104
VR101
VR102
T106
AM IFT
T105
AM OSC
TP108
(GND)
TP105
TP106
IC102
1 24
TP107
VR103
IC103
9 8
11 12
CF105
16 1
CX101

POWER AMPLIFIER ADJUSTMENT

BEFORE ADJUSTMENT

Unplug the AC power cord and set the front panel controls as follows:

- Power switch to OFF position.
- Set the SPEAKERS switch to the OFF position.
- Turn the MASTER VOLUME Control to minimum.
- IDLING CURRENT ADJUSTMENT VR105/VR106 (on the Main P.C.Board) setting to mechanical center position.
- Connect the AC power cord and Power switch to the ON position.

IDLING CURRENT ADJUSTMENT

This adjustment is very sensitive to changes in ambient temperature. Allow set to operate for 2 minutes before attempting this alignment.

LEFT CHANNEL AMPLIFIER

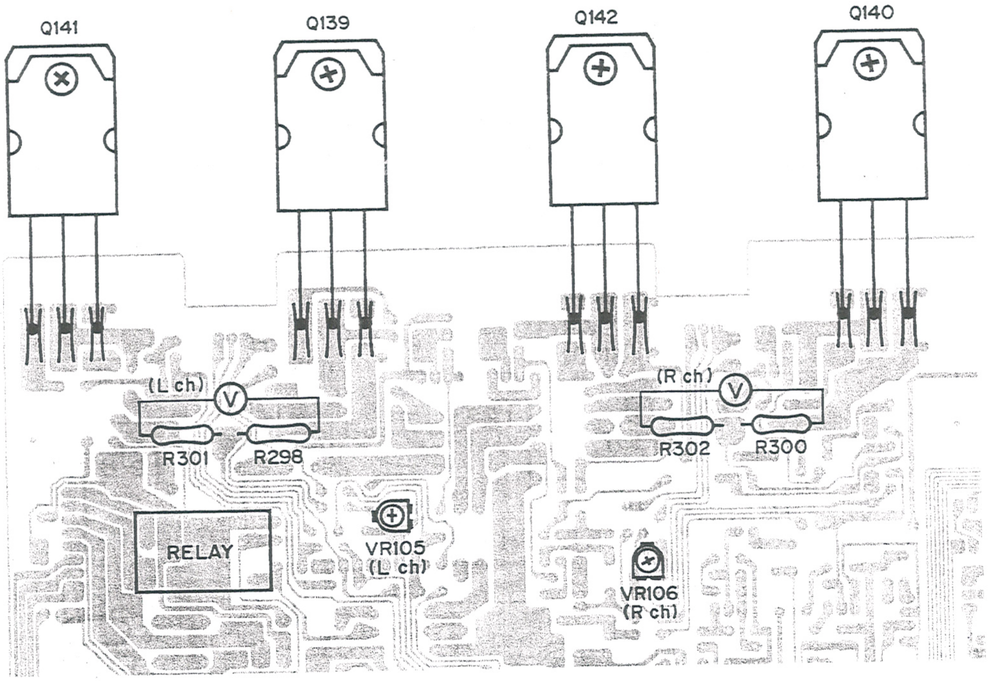
1. Connect the DC Voltmeter between Test Point TP109 and TP110 on the Main P.C.Board.
2. Adjust the VR105 for an indication of 5mV ~ 7mV on the DC Voltmeter.

RIGHT CHANNEL AMPLIFIER

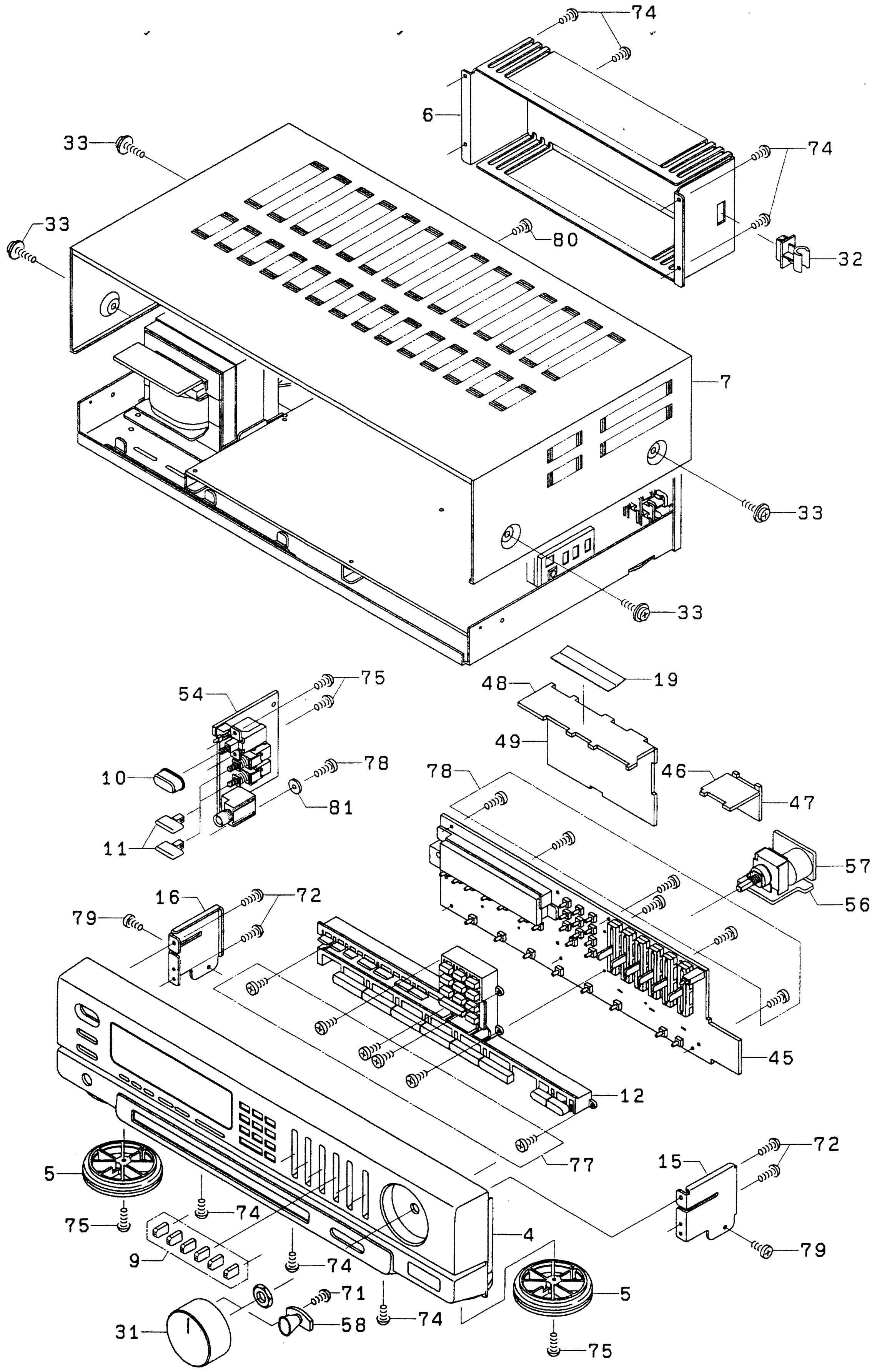
1. Connect the DC Voltmeter between Test point TP111 and TP112 on the Main P.C.Board.
2. Adjust the VR106 for an indication of 5mV ~ 7mV on the DC Voltmeter.

ADJUSTMENT POINTS

(TOP VIEW)



CABINET & CHASSIS EXPLODED VIEW (1)



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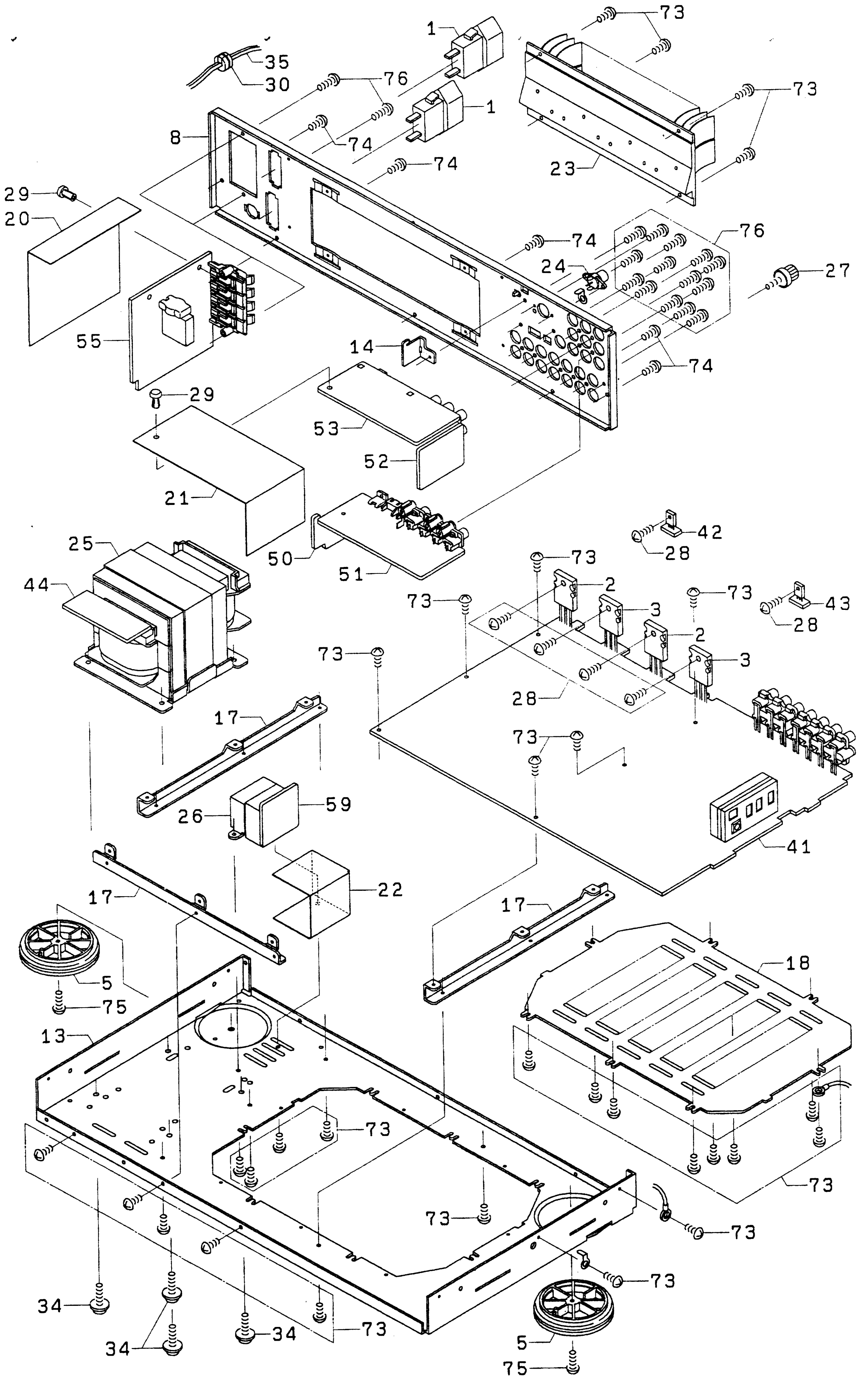
CABINET & CHASSIS EXPLODED VIEW (2)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CABINET & CHASSIS PARTS LIST

Ref. No.	Part No.	Description	Q'ty
PACKAGE			
	620 212 8016	Inner Carton	1
	620 204 7966	Pad,Right	1
	620 204 7980	Pad,Left	1
	620 210 6434	Pad,Plain	1
	620 059 6596	Patching Sheet	1
	620 148 8012	Sheet Polyethylene	1
	620 152 7452	Serial No. Sheet	2
ACCESSORIES			
	620 212 8481	Assy,Poly Cover	1
	620 209 4243	Loop Antenna,LA-400	1
	620 212 8498	Remocon,RRS-580	1
	620 210 8353	Cord,RCA,Black	1
	620 212 8511	Instruction Manual	1
	620 038 1673	FM Antenna Assy	1
	620 057 8783	Bag Fan	1
	620 112 8123	Holder Antenna	1
	620 152 2624	Certificate Card	1
	620 212 8504	Label,Barcode	1
CABINET			
	620 022 3454	Terminal Lug	1
	620 050 2887	Cramp Wire	1
	620 125 8424	Wire Band	5
	620 152 7452	Serial No. Sheet	1
1	⚠ 620 017 1212	AC Socket	2
2	405 108 3807	TR 2SA1694-Y [Q141]	1
or	405 108 3708	TR 2SA1694-P [Q141]	1
or	405 108 3609	TR 2SA1694-O [Q141]	1
or	405 080 7602	TR 2SA1264N-O [Q141]	1
or	405 080 7701	TR 2SA1264N-R [Q141]	1
2	405 108 3807	TR 2SA1694-Y [Q142]	1
or	405 108 3708	TR 2SA1694-P [Q142]	1
or	405 108 3609	TR 2SA1694-O [Q142]	1
or	405 080 7602	TR 2SA1264N-O [Q142]	1
or	405 080 7701	TR 2SA1264N-R [Q142]	1
3	405 108 4101	TR 2SC4467-Y [Q139]	1
or	405 108 4002	TR 2SC4467-P [Q139]	1
or	405 108 3906	TR 2SC4467-O [Q139]	1
or	405 080 7800	TR 2SC3181N-O [Q139]	1
or	405 080 7909	TR 2SC3181N-R [Q139]	1
3	405 108 4101	TR 2SC4467-Y [Q140]	1
or	405 108 4002	TR 2SC4467-P [Q140]	1
or	405 108 3906	TR 2SC4467-O [Q140]	1
or	405 080 7800	TR 2SC3181N-O [Q140]	1
or	405 080 7909	TR 2SC3181N-R [Q140]	1
4	620 212 7965	Assy,Cabinet	1
5	620 198 6969	Assy,Foot	4
6	620 212 7989	Cover,Heat Sink	1
7	620 204 8062	Cover	1
8	620 212 7996	Panel,Rear	1
9	620 204 3340	Knob,Slide	6
10	620 198 0622	Button,Power	1
11	620 198 0752	Button,Push	2
12	620 210 9633	Button,Function	1
13	620 204 5795	Chassis	1
14	620 213 1504	Bracket-E,PCB	1
15	620 210 7141	Bracket-M,Right	1
16	620 210 7158	Bracket-M,Left	1
17	620 204 5764	Mount-M,Chassis	3
18	620 204 5788	Plate,Bottom	1
19	620 208 6224	Insulator	1
20	620 209 8784	Insulator	1
21	620 211 0875	Insulator	1
22	620 213 1498	Insulator	1
23	620 209 4076	Heat Sink	1
24	620 212 8023	Terminal,ANT,FM, (DIN)	1
25	⚠ 620 212 7637	Power Trans,SEV 110VA	1
26	⚠ 620 212 7620	Power Trans,SEV 1VA	1
27	620 051 2152	Screw Ground	1
28	620 051 3708	Screw Braz. HD. +M3X8	6
or	411 020 8004	SCR S-TPG BRZ 3X8	6
or	411 092 2900	WASHER Z 3X10X1	6
29	620 191 2746	Rivet 3.5	2
30	620 053 2136	Bushing (Power Cord)	1
31	620 186 6711	Knob Volume Assy	1
32	620 122 2111	Holder Antenna	1
33	620 123 0284	SCR TPG BIN +M4.0X8	4
34	620 123 0833	SCR Bind TAP-B +M4X10	4
35	⚠ 620 023 7550	Power Cord	1
41	620 212 5787	Assy,PCB,Main	1
42	620 212 5794	Assy,PCB,Bias Left	1
43	620 212 5800	Assy,PCB,Bias Right	1
44	620 212 5817	Assy,PCB,Trans	1
45	620 211 0363	Assy,PCB,Control	1
46	620 211 0370	Assy,PCB,Graphic EQ.	1
47	620 211 0387	Assy,PCB,Graphic-EQ Jumper	1
48	620 211 0394	Assy,PCB,Micom Jumper	1
49	620 212 5824	Assy,PCB,Micom	1
50	620 211 0417	Assy,PCB,Video Jumper 1	1
51	620 211 0424	Assy,PCB,Video IN/OUT	1
52	620 211 0431	Assy,PCB,Video Jumper 2	1
53	620 212 5831	Assy,PCB,Pin Jack,Antenna	1
54	620 211 0455	Assy,PCB,Switch	1
55	620 212 5848	Assy,PCB,Sub Trans	1
56	620 211 0479	Assy,PCB,Volume	1
57	620 211 0486	Assy,PCB,Motor	1
58	620 211 0493	Assy,PCB,Volume IND	1
59	620 212 7897	Assy,PCB,Sub Trans,EUR	1
71	411 020 5508	SCR S-TPG BRZ 2.6X6	1
72	411 020 5706	SCR S-TPG BRZ 2.6X8	4
73	411 020 7700	SCR S-TPG BRZ 3X6	30
74	411 099 9704	SCR S-TPG BRZ 3X6	12
75	411 020 8004	SCR S-TPG BRZ 3X8	6
76	411 099 9803	SCR S-TPG BRZ 3X8	16
77	411 021 2704	SCR S-TPG BIN 2.6X6	6
78	411 021 3107	SCR S-TPG BIN 2.6X8	7
79	411 021 5705	SCR S-TPG BIN 3X6	2
80	411 021 5903	SCR S-TPG BIN 3X6	1
81	411 092 3303	WASHER Z 3X12X1	1

NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description	Q'ty
ASSY,PCB,MAIN			
41	620 212 5787	Assy,PCB,Main	1
	620 021 6814	Pin 1P	8
	620 211 6389	Plate,Shield	1
	620 208 3087	Tuner,FM,Frontend	1

(Component parts used in Front End are not serviceable and available.)

Ref. No.	Part No.	Description	Q'ty
	620 201 6146	Jack,RCA Pin,2P,WH/RE	1
	620 201 6160	Jack,RCA Pin,6P,WH/RE	2
	620 202 3496	Fuse Holder	6
	620 211 0097	Relay,2P-1T 24V	1
	620 053 9241	Plate Heat Sink	1
	620 186 7275	Plate Earth	1
	620 207 1848	Assy,Wire,1P	1
CF101	620 014 5664	Ceramic Filter	1
CF102	620 014 5664	Ceramic Filter	1
CF103	620 014 5879	Ceramic Filter 450kHz	1
CF104	620 026 6741	Mechanical Filter	1
CF105	620 014 6319	Ceramic OSC CSB456F11	1
CN101	620 211 0059	Connector-S,8P	1
CN102	620 211 0066	Connector-S,14P	1
CN103	620 211 0066	Connector-S,14P	1
CN104	620 211 0073	Connector-S,17P	1
CN105	620 202 7708	Socket,52147-0710,7P	1
CN106	620 201 6450	Socket,Jumper,4P	1
CN109	620 017 3575	Socket Jumper 2P	1
CN115	620 020 5825	Socket Jumper 8P	1
CX101	620 007 1338	Crystal 7.2MHz	1
or	620 007 3226	Crystal 7.2MHz	1
F101	⚠ 423 005 0507	FUSE 250V T1A	1
F102	⚠ 423 005 0507	FUSE 250V T1A	1
F103	⚠ 423 005 0507	FUSE 250V T1A	1
F104	⚠ 423 007 2103	FUSE 250V T4A	1
F105	⚠ 423 007 2103	FUSE 250V T4A	1
L107	620 027 1240	AF Coil	1
L108	620 027 1240	AF Coil	1
PC113	620 205 1970	Wire,Parallel,4P,L=220	1
PC114	620 182 9457	Wire 4 Parallel	1
TC103	620 007 0867	Trimmer 10PF	1
T102	620 028 1348	MW Antenna Coil	1
T103	620 189 6008	IFT DET 10.7MHz 1st K	1
T104	620 189 6015	IFT DET 10.7MHz 2nd K	1
T105	620 190 3676	OSC Coil MW	1
T106	620 027 7419	IFT AM 450kHz	1
VR101	620 006 1353	Potentiometer 100KB	1
VR102	620 006 1377	Potentiometer 10KB	1
VR103	620 006 1353	Potentiometer 100KB	1
VR105	620 006 3142	Potentiometer 470B	1
VR106	620 006 3142	Potentiometer 470B	1
W101	620 017 5784	Connector 1P Assy	1
IC101	409 073 9505	IC LA1266	1
IC102	409 017 1008	IC LA3401	1
IC103	409 066 7600	IC LM7001	1
IC104	409 057 4403	IC UPC4570C	1
IC105	409 109 5105	IC LC7821	1
IC106	409 073 8706	IC LA6458D	1
IC107	409 166 5308	IC TC9215P	1
IC108	409 114 4803	IC LB1641	1
IC111	409 039 9709	IC NJM78L15A	1
IC112	409 141 9208	IC NJM79L15A	1
IC113	409 140 0503	IC NJM78M12FA	1
Q105	405 016 0806	TR 2SC2839-E	1
Q106	405 027 0505	TR 2SK246-GR	1
Q107	405 027 8402	TR 2SK583	1
Q108	405 004 5103	TR 2SA608-G-SPA-AC	1
or	405 004 4601	TR 2SA608-F-SPA-AC	1
Q109	405 019 3903	TR 2SC536-G-SPA-AC	1
or	405 019 2807	TR 2SC536-F-SPA-AC	1
Q110	405 004 5103	TR 2SA608-G-SPA-AC	1
or	405 004 4601	TR 2SA608-F-SPA-AC	1
Q112	405 003 7900	TR 2SA1348	1
Q113	405 019 3903	TR 2SC536-G-SPA-AC	1
or	405 019 2807	TR 2SC536-F-SPA-AC	1
Q114	405 019 3903	TR 2SC536-G-SPA-AC	1
or	405 019 2807	TR 2SC536-F-SPA-AC	1
Q115	405 021 0808	TR 2SD1012-H	1
or	405 021 0501	TR 2SD1012-G	1
Q116	405 003 7900	TR 2SA1348	1
Q117	405 003 7900	TR 2SA1348	1
Q119	405 039 5802	TR 2SC3792-AA	1
Q120	405 039 5802	TR 2SC3792-AA	1
Q121	405 039 5802	TR 2SC3792-AA	1
Q122	405 039 5802	TR 2SC3792-AA	1
Q123	405 016 9007	TR 2SC3066-G	1
or	405 016 8901	TR 2SC3066-F	1
Q124	405 016 9007	TR 2SC3066-G	1
or	405 016 8901	TR 2SC3066-F	1
Q125	405 002 9004	TR 2SA1208-T	1
or	405 002 8908	TR 2SA1208-S	1
Q126	405 002 9004	TR 2SA1208-T	1
or	405 002 8908	TR 2SA1208-S	1
Q127	405 016 3807	TR 2SC2910-T	1
or	405 016 3708	TR 2SC2910-S	1
Q128	405 016 3807	TR 2SC2910-T	1
or	405 016 3708	TR 2SC2910-S	1
Q131	405 019 3903	TR 2SC536-G-SPA-AC	1
or	405 019 2807	TR 2SC536-F-SPA-AC	1
Q132	405 019 3903	TR 2SC536-G-SPA-AC	1
or	405 019 2807	TR 2SC536-F-SPA-AC	1
Q133	405 004 5103	TR 2SA608-G-SPA-AC	1
or	405 004 4601	TR 2SA608-F-SPA-AC	1
Q134	405 004 5103	TR 2SA608-G-SPA-AC	1
or	405 004 4601	TR 2SA608-F-SPA-AC	1
Q135	405 042 9507	TR 2SC3902-S	1
or	405 042 9408	TR 2SC3902-R	1
Q136	405 042 9507	TR 2SC3902-S	1
or	405 042 9408	TR 2SC3902-R	1
Q137	405 042 4106	TR 2SA1507-S	1
or	405 042 4007	TR 2SA1507-R	1
Q138	405 042 4106	TR 2SA1507-S	1
or	405 042 4007	TR 2SA1507-R	1
Q145	405 019 3903	TR 2SC536-G-SPA-AC	1
or	405 019 2807	TR 2SC536-F-SPA-AC	1
Q146	405 004 5103	TR 2SA608-G-SPA-AC	1
or	405 004 4601	TR 2SA608-F-SPA-AC	1
Q147	405 019 3903	TR 2SC536-G-SPA-AC	1
or	405 019 2807	TR 2SC536-F-SPA-AC	1
Q148	405 013 7204	TR 2SC2274K-E-AA	1
or	405 013 7303	TR 2SC2274K-F-AA	1
Q149	405 022 8209	TR 2SD1682-T	1
or	405 022 8001	TR 2SD1682-S	1
Q150	405 034 5104	TR 2SK246-BL	1
Q151	405 024 9907	TR 2SD734-F	1
or	405 024 9709	TR 2SD734-E	1
Q152	405 018 2808	TR 2SC3402-AC	1
Q153	405 003 7900	TR 2SA1348	1
Q154	405 018 2808	TR 2SC3402-AC	1
Q155	405 003 7900	TR 2SA1348	1
Q156	405 003 7900	TR 2SA1348	1

If necessary, replace both Diode D105, D106 (SVC321) together with new ones which have the equivalent characteristics.

Ref. No.	Part No.	Description	Q'ty
D105	407 000 4708	VARACTOR DI SVC321C-2	1
or	407 000 4807	VARACTOR DI SVC321D-2	1
D106	407 000 4708	VARACTOR DI SVC321C-2	1
or	407 000 4807	VARACTOR DI SVC321D-2	1
D107	407 050 4802	ZENER DIODE GZA5.1Y-BT	1
D111	407 008 0405	DIODE GMB01-BT	1
D112	407 008 0405	DIODE GMB01-BT	1
D113	407 008 0405	DIODE GMB01-BT	1
D114	407 008 0405	DIODE GMB01-BT	1
D115	407 008 0405	DIODE GMB01-BT	1
D116	407 008 0405	DIODE GMB01-BT	1
D117	407 008 0405	DIODE GMB01-BT	1
D118	407 008 0405	DIODE GMB01-BT	1
D119	407 008 0405	DIODE GMB01-BT	1
D120	407 008 0405	DIODE GMB01-BT	1
D121	407 008 0405	DIODE GMB01-BT	1
D122	407 008 0405	DIODE GMB01-BT	1
D123	407 049 7807	ZENER DIODE GZA18Y-BT	1
D124	407 049 6602	ZENER DIODE GZA13Y-BT	1
D125	407 050 0002	ZENER DIODE GZA24X-BT	1
D126	407 050 6301	ZENER DIODE GZA6.2Z-BT	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description				Q'ty
D127	407 050 6301	ZENER DIODE GZA6.2Z-BT				1
D128	407 050 6301	ZENER DIODE GZA6.2Z-BT				1
D129	407 050 3300	ZENER DIODE GZA4.3X-BT				1
D130	407 008 0405	DIODE GMB01-BT				1
D131	407 008 0405	DIODE GMB01-BT				1
D132	407 090 2509	DIODE DBF40C				1
D133	407 004 9709	DIODE DSK10C				1
D134	407 004 9709	DIODE DSK10C				1
D135	407 004 9709	DIODE DSK10C				1
D136	407 004 9709	DIODE DSK10C				1
D137	407 004 9709	DIODE DSK10C				1
D138	407 005 3805	DIODE DS442-BT				1
C112	403 001 1906	CERAMIC	0.01U	M	16V	1
C114	403 001 1906	CERAMIC	0.01U	M	16V	1
C115	403 074 2701	CERAMIC	0.047U	Z	50V	1
C116	403 026 2209	CERAMIC	47P	J	50V	1
C117	403 074 2701	CERAMIC	0.047U	Z	50V	1
C118	403 074 2701	CERAMIC	0.047U	Z	50V	1
C119	403 043 1100	ELECT	220U	M	16V	1
C120	403 074 2701	CERAMIC	0.047U	Z	50V	1
C121	403 074 2701	CERAMIC	0.047U	Z	50V	1
C122	403 001 1906	CERAMIC	0.01U	M	16V	1
C123	403 044 0300	ELECT	47U	M	16V	1
C124	403 049 1708	ELECT	1U	M	50V	1
C125	403 072 8200	CERAMIC	330P	K	50V	1
C127	403 001 1906	CERAMIC	0.01U	M	16V	1
C128	403 042 0401	ELECT	10U	M	16V	1
C129	403 047 1601	ELECT	4.7U	M	25V	1
C130	403 050 7805	ELECT	3.3U	M	50V	1
C131	403 001 1906	CERAMIC	0.01U	M	16V	1
C132	403 038 2402	ELECT	100U	M	6.3V	1
C133	403 088 4104	STYRENE	430P	J	50V	1
C134	403 018 4204	CERAMIC	22P	K	50V	1
C135	403 042 0401	ELECT	10U	M	16V	1
C136	403 057 0304	POLYESTER	0.01U	J	50V	1
C137	403 060 8700	POLYESTER	0.033U	K	50V	1
C138	403 044 0300	ELECT	47U	M	16V	1
C139	403 001 1906	CERAMIC	0.01U	M	16V	1
C140	403 056 7809	POLYESTER	1000P	J	50V	1
C141	403 049 1708	ELECT	1U	M	50V	1
C142	403 121 9509	CERAMIC	0.1U	Z	50V	1
C143	403 075 0508	CERAMIC	6800P	K	50V	1
C144	403 073 3204	CERAMIC	390P	K	50V	1
C145	403 069 1207	CERAMIC	1000P	K	50V	1
C146	403 042 0401	ELECT	10U	M	16V	1
C147	403 073 7004	CERAMIC	470P	K	50V	1
C148	403 073 7004	CERAMIC	470P	K	50V	1
C149	403 049 1708	ELECT	1U	M	50V	1
C150	403 049 1708	ELECT	1U	M	50V	1
C151	403 060 6003	POLYESTER	3300P	J	50V	1
C152	403 060 6003	POLYESTER	3300P	J	50V	1
C153	403 001 1906	CERAMIC	0.01U	M	16V	1
C154	403 050 1308	ELECT	2.2U	M	50V	1
C155	403 048 7701	ELECT	0.47U	M	50V	1
C156	403 049 1708	ELECT	1U	M	50V	1
C157	403 062 0900	POLYESTER	0.047U	K	50V	1
C158	403 001 1906	CERAMIC	0.01U	M	16V	1
C159	403 042 3600	ELECT	100U	M	16V	1
C160	403 022 0902	CERAMIC	30P	J	50V	1
C161	403 022 0902	CERAMIC	30P	J	50V	1
C163	403 001 1906	CERAMIC	0.01U	M	16V	1
C164	403 038 7209	ELECT	220U	M	6.3V	1
C165	403 069 1207	CERAMIC	1000P	K	50V	1
C166	403 068 9402	CERAMIC	100P	K	50V	1
C167	403 001 1906	CERAMIC	0.01U	M	16V	1
C168	403 044 0300	ELECT	47U	M	16V	1
C169	403 049 1708	ELECT	1U	M	50V	1
C170	403 030 2103	CERAMIC	6.8P	K	50V	1
C171	403 024 1501	CERAMIC	39P	J	50V	1
C179	403 071 6207	CERAMIC	220P	K	50V	1
C180	403 071 6207	CERAMIC	220P	K	50V	1
C181	403 071 6207	CERAMIC	220P	K	50V	1
C182	403 071 6207	CERAMIC	220P	K	50V	1
C183	403 047 1601	ELECT	4.7U	M	25V	1
C184	403 047 1601	ELECT	4.7U	M	25V	1
C185	403 038 7209	ELECT	220U	M	6.3V	1
C186	403 038 7209	ELECT	220U	M	6.3V	1
C187	403 071 6207	CERAMIC	220P	K	50V	1
C188	403 071 6207	CERAMIC	220P	K	50V	1
C189	403 062 7305	POLYESTER	0.056U	K	50V	1
C190	403 062 7305	POLYESTER	0.056U	K	50V	1
C191	403 058 3106	POLYESTER	0.015U	J	50V	1
C192	403 058 3106	POLYESTER	0.015U	J	50V	1
C193	403 047 1601	ELECT	4.7U	M	25V	1
C194	403 047 1601	ELECT	4.7U	M	25V	1
C195	403 044 0300	ELECT	47U	M	16V	1
C196	403 044 0300	ELECT	47U	M	16V	1
C197	403 001 1906	CERAMIC	0.01U	M	16V	1
C198	403 049 1708	ELECT	1U	M	50V	1
C199	403 047 1601	ELECT	4.7U	M	25V	1
C200	403 047 1601	ELECT	4.7U	M	25V	1
C201	403 071 6207	CERAMIC	220P	K	50V	1
C202	403 071 6207	CERAMIC	220P	K	50V	1
C203	403 071 6207	CERAMIC	220P	K	50V	1
C204	403 071 6207	CERAMIC	220P	K	50V	1
C205	403 071 6207	CERAMIC	220P	K	50V	1
C206	403 071 6207	CERAMIC	220P	K	50V	1
C207	403 071 6207	CERAMIC	220P	K	50V	1
C208	403 071 6207	CERAMIC	220P	K	50V	1
C209	403 071 6207	CERAMIC	220P	K	50V	1
C210	403 071 6207	CERAMIC	220P	K	50V	1
C211	403 071 6207	CERAMIC	220P	K	50V	1
C212	403 071 6207	CERAMIC	220P	K	50V	1
C213	403 071 6207	CERAMIC	220P	K	50V	1
C214	403 071 6207	CERAMIC	220P	K	50V	1
C215	403 062 0900	POLYESTER	0.047U	K	50V	1
C216	403 062 0900	POLYESTER	0.047U	K	50V	1
C217	403 047 1601	ELECT	4.7U	M	25V	1
C218	403 047 1601	ELECT	4.7U	M	25V	1
C219	403 068 9402	CERAMIC	100P	K	50V	1
C220	403 068 9402	CERAMIC	100P	K	50V	1
C221	403 068 9402	CERAMIC	100P	K	50V	1
C222	403 068 9402	CERAMIC	100P	K	50V	1
C223	403 069 8404	CERAMIC	0.01U	Z	50V	1
C224	403 069 8404	CERAMIC	0.01U	Z	50V	1
C225	403 047 1601	ELECT	4.7U	M	25V	1
C226	403 047 1601	ELECT	4.7U	M	25V	1
C227	403 074 6303	CERAMIC	560P	K	50V	1
C228	403 074 6303	CERAMIC	560P	K	50V	1
C229	403 074 9205	CERAMIC	680P	K	50V	1
C230	403 074 9205	CERAMIC	680P	K	50V	1
C231	403 047 1601	ELECT	4.7U	M	25V	1
C232	403 047 1601	ELECT	4.7U	M	25V	1
C233	403 072 8200	CERAMIC	330P	K	50V	1
C234	403 072 8200	CERAMIC	330P	K	50V	1
C235	403 072 8200	CERAMIC	330P	K	50V	1
C236	403 072 8200	CERAMIC	330P	K	50V	1
C237	403 039 7901	ELECT	100U	M	10V	1
C238	403 039 7901	ELECT	100U	M	10V	1
C239	403 036 3005	CERAMIC	5P	C	500V	1
C240	403 036 3005	CERAMIC	5P	C	500V	1
C243	403 049 5508	ELECT	10U	M	50V	1
C244	403 049 5508	ELECT	10U	M	50V	1
C245	403 049 1708	ELECT	1U	M	50V	1
C246	403 049 1708	ELECT	1U	M	50V	1
C247	403 049 1708	ELECT	1U	M	50V	1
C248	403 049 1708	ELECT	1U	M	50V	1
C249	403 036 2503	CERAMIC	47P	K	500V	1
C250	403 036 2503	CERAMIC	47P	K	500V	1
C251	403 036 2503	CERAMIC	47P	K	500V	1
C252	403 036 2503	CERAMIC	47P	K	500V	1
C253	403 036 3005	CERAMIC	5P	C	500V	1
C254	403 036 3005	CERAMIC	5P	C	500V	1
C255	404 012 7000	CERAMIC	0.01U	P	500V	1
C256	404 012 7000	CERAMIC	0.01U	P	500V	1
C257	403 052 4703	ELECT	47U	M	63V	1
C258	403 121 0803	ELECT	220U	M	63V	1
C259	403 062 0900	POLYESTER	0.047U	K	50V	1
C260	403 062 0900	POLYESTER	0.047U	K	50V	1
C261	403 044 8306	ELECT	10U	M	25V	1
C262	403 044 0300	ELECT	47U	M	16V	1
C263	403 071 6207	CERAMIC	220P	K	50V	1
C264	403 071 6207	CERAMIC	220P	K	50V	1
C265	403 042 0401	ELECT	10U	M	16V	1
C266	403 042 0401	ELECT	10U	M	16V	1
C267	403 121 9509	CERAMIC	0.1U	Z	50V	1
C268	403 042 3600	ELECT	100U	M	16V	1
C269	403 121 9509	CERAMIC	0.1U	Z	50V	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
C270	403 042 3600	ELECT 100U M 16V	1
C271	403 121 9509	CERAMIC 0.1U Z 50V	1
C272	403 042 3600	ELECT 100U M 16V	1
C273	403 054 1304	ELECT 47U M 35V	1
C274	403 042 0401	ELECT 10U M 16V	1
C275	403 039 7901	ELECT 100U M 10V	1
C276	403 045 0606	ELECT 100U M 25V	1
C277	403 069 8404	CERAMIC 0.01U Z 50V	1
C278	404 012 7000	CERAMIC 0.01U P 500V	1
C279	404 012 7000	CERAMIC 0.01U P 500V	1
C280	620 202 3441	Capacitor,4700U,55V	1
C281	620 202 3441	Capacitor,4700U,55V	1
C282	403 069 8404	CERAMIC 0.01U Z 50V	1
C283	403 069 8404	CERAMIC 0.01U Z 50V	1
C284	403 046 0605	ELECT 2200U M 25V	1
C285	403 047 6309	ELECT 470U M 25V	1
C286	403 069 8404	CERAMIC 0.01U Z 50V	1
C287	403 069 8404	CERAMIC 0.01U Z 50V	1
C288	403 047 1601	ELECT 4.7U M 25V	1
C289	403 047 1601	ELECT 4.7U M 25V	1
C290	403 069 8404	CERAMIC 0.01U Z 50V	1
C291	403 026 2209	CERAMIC 47P J 50V	1
C292	403 026 2209	CERAMIC 47P J 50V	1
C294	403 074 2701	CERAMIC 0.047U Z 50V	1
R113	401 022 0403	CARBON 68 JA 1/4W	1
R114	401 025 7805	CARBON 2.2K JA 1/6W	1
R115	401 026 6609	CARBON 390 JA 1/6W	1
R116	401 026 6609	CARBON 390 JA 1/6W	1
R117	401 027 8305	CARBON 820 JA 1/6W	1
R118	401 012 4503	CARBON 100 JA 1/4W	1
R119	401 024 7707	CARBON 100K JA 1/6W	1
R120	401 024 7004	CARBON 1K JA 1/6W	1
R121	401 024 8001	CARBON 1M JA 1/6W	1
R122	401 026 1000	CARBON 2.7K JA 1/6W	1
R123	401 026 6609	CARBON 390 JA 1/6W	1
R124	401 012 5708	CARBON 1K JA 1/4W	1
R125	401 012 4503	CARBON 100 JA 1/4W	1
R126	401 025 1902	CARBON 15K JA 1/6W	1
R127	401 019 9303	CARBON 47 JB 1/4W	1
R128	401 026 4308	CARBON 3.3K JA 1/6W	1
R129	401 025 8208	CARBON 22K JA 1/6W	1
R130	401 026 9907	CARBON 4.7K JA 1/6W	1
R131	401 026 9907	CARBON 4.7K JA 1/6W	1
R132	401 025 8208	CARBON 22K JA 1/6W	1
R133	401 024 7707	CARBON 100K JA 1/6W	1
R134	401 026 4308	CARBON 3.3K JA 1/6W	1
R135	401 026 4308	CARBON 3.3K JA 1/6W	1
R136	401 024 6700	CARBON 100 JA 1/6W	1
R137	401 024 8704	CARBON 110K JA 1/6W	1
R138	401 024 8704	CARBON 110K JA 1/6W	1
R139	401 025 4903	CARBON 180K JA 1/6W	1
R140	401 025 4903	CARBON 180K JA 1/6W	1
R141	401 025 7805	CARBON 2.2K JA 1/6W	1
R142	401 025 7805	CARBON 2.2K JA 1/6W	1
R143	401 024 7707	CARBON 100K JA 1/6W	1
R144	401 024 7707	CARBON 100K JA 1/6W	1
R145	401 018 3807	CARBON 3.3K JA 1/4W	1
R146	401 026 4308	CARBON 3.3K JA 1/6W	1
R147	401 026 4308	CARBON 3.3K JA 1/6W	1
R148	401 024 7400	CARBON 10K JA 1/6W	1
R149	401 024 7707	CARBON 100K JA 1/6W	1
R150	401 024 7400	CARBON 10K JA 1/6W	1
R151	401 027 0309	CARBON 47K JA 1/6W	1
R152	401 024 7400	CARBON 10K JA 1/6W	1
R153	401 027 0309	CARBON 47K JA 1/6W	1
R154	401 024 7400	CARBON 10K JA 1/6W	1
R155	401 026 4308	CARBON 3.3K JA 1/6W	1
R156	401 023 0709	CARBON 82 JA 1/4W	1
R157	401 027 0309	CARBON 47K JA 1/6W	1
R158	401 024 7400	CARBON 10K JA 1/6W	1
R160	401 026 3905	CARBON 330 JA 1/6W	1
R162	401 059 6805	OXIDE-MT 180 JB 1W	1
R163	401 024 7004	CARBON 1K JA 1/6W	1
R164	401 024 7400	CARBON 10K JA 1/6W	1
R165	401 012 7009	CARBON 10K JA 1/4W	1
R166	401 024 7004	CARBON 1K JA 1/6W	1
R167	401 026 4308	CARBON 3.3K JA 1/6W	1
R168	401 019 9600	CARBON 47 JA 1/4W	1
R169	401 016 3809	CARBON 2.2K JA 1/4W	1

Ref. No.	Part No.	Description	Q'ty
R171	401 026 7408	CARBON 39K JA 1/6W	1
R172	401 027 9005	CARBON 82K JA 1/6W	1
R173	401 027 0309	CARBON 47K JA 1/6W	1
R174	401 027 9005	CARBON 82K JA 1/6W	1
R175	401 025 7805	CARBON 2.2K JA 1/6W	1
R181	401 024 7004	CARBON 1K JA 1/6W	1
R182	401 024 7004	CARBON 1K JA 1/6W	1
R183	401 024 7707	CARBON 100K JA 1/6W	1
R184	401 024 7707	CARBON 100K JA 1/6W	1
R185	401 024 7707	CARBON 100K JA 1/6W	1
R186	401 024 7707	CARBON 100K JA 1/6W	1
R187	401 024 6700	CARBON 100 JA 1/6W	1
R188	401 024 6700	CARBON 100 JA 1/6W	1
R189	401 027 3003	CARBON 56K JA 1/6W	1
R190	401 027 3003	CARBON 56K JA 1/6W	1
R191	401 026 9907	CARBON 4.7K JA 1/6W	1
R192	401 026 9907	CARBON 4.7K JA 1/6W	1
R193	401 024 7707	CARBON 100K JA 1/6W	1
R194	401 024 7707	CARBON 100K JA 1/6W	1
R195	401 024 7004	CARBON 1K JA 1/6W	1
R196	401 012 5708	CARBON 1K JA 1/4W	1
R197	401 013 3901	CARBON 120 JA 1/4W	1
R198	401 013 3901	CARBON 120 JA 1/4W	1
R199	401 024 7004	CARBON 1K JA 1/6W	1
R200	401 012 5708	CARBON 1K JA 1/4W	1
R201	401 024 7004	CARBON 1K JA 1/6W	1
R202	401 012 5708	CARBON 1K JA 1/4W	1
R203	401 024 7004	CARBON 1K JA 1/6W	1
R204	401 012 5708	CARBON 1K JA 1/4W	1
R205	401 024 7004	CARBON 1K JA 1/6W	1
R206	401 012 5708	CARBON 1K JA 1/4W	1
R207	401 012 5708	CARBON 1K JA 1/4W	1
R208	401 024 7004	CARBON 1K JA 1/6W	1
R209	401 012 5708	CARBON 1K JA 1/4W	1
R210	401 024 7004	CARBON 1K JA 1/6W	1
R211	401 027 0507	CARBON 470K JA 1/6W	1
R212	401 027 0507	CARBON 470K JA 1/6W	1
R213	401 027 0507	CARBON 470K JA 1/6W	1
R214	401 027 0507	CARBON 470K JA 1/6W	1
R215	401 027 0507	CARBON 470K JA 1/6W	1
R216	401 027 0507	CARBON 470K JA 1/6W	1
R217	401 026 1604	CARBON 270K JA 1/6W	1
R218	401 026 1604	CARBON 270K JA 1/6W	1
R219	401 027 0507	CARBON 470K JA 1/6W	1
R220	401 027 0507	CARBON 470K JA 1/6W	1
R221	401 025 2305	CARBON 150K JA 1/6W	1
R222	401 025 2305	CARBON 150K JA 1/6W	1
R223	401 024 7400	CARBON 10K JA 1/6W	1
R224	401 024 7004	CARBON 1K JA 1/6W	1
R225	401 024 7004	CARBON 1K JA 1/6W	1
R226	401 024 6700	CARBON 100 JA 1/6W	1
R227	401 024 7004	CARBON 1K JA 1/6W	1
R228	401 024 7004	CARBON 1K JA 1/6W	1
R229	401 024 7004	CARBON 1K JA 1/6W	1
R230	401 024 7004	CARBON 1K JA 1/6W	1
R231	401 025 8208	CARBON 22K JA 1/6W	1
R233	401 024 7004	CARBON 1K JA 1/6W	1
R234	401 025 8208	CARBON 22K JA 1/6W	1
R236	401 027 0309	CARBON 47K JA 1/6W	1
R237	401 025 2305	CARBON 150K JA 1/6W	1
R238	401 025 2305	CARBON 150K JA 1/6W	1
R239	401 027 5502	CARBON 6.8K JA 1/6W	1
R240	401 027 5502	CARBON 6.8K JA 1/6W	1
R241	401 012 5708	CARBON 1K JA 1/4W	1
R242	401 012 5708	CARBON 1K JA 1/4W	1
R243	401 024 7707	CARBON 100K JA 1/6W	1
R244	401 024 7707	CARBON 100K JA 1/6W	1
R245	401 024 7004	CARBON 1K JA 1/6W	1
R246	401 024 7004	CARBON 1K JA 1/6W	1
R247	401 026 9907	CARBON 4.7K JA 1/6W	1
R248	401 026 9907	CARBON 4.7K JA 1/6W	1
R249	401 025 4200	CARBON 1.8K JA 1/6W	1
R250	401 025 4200	CARBON 1.8K JA 1/6W	1
R251	401 024 7707	CARBON 100K JA 1/6W	1
R252	401 024 7707	CARBON 100K JA 1/6W	1
R253	401 025 6105	CARBON 200 JA 1/6W	1
R254	401 025 6105	CARBON 200 JA 1/6W	1
R255	401 024 7400	CARBON 10K JA 1/6W	1
R256	401 024 7400	CARBON 10K JA 1/6W	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
R257	401 024 7400	CARBON 10K JA 1/6W	1
R258	401 024 7400	CARBON 10K JA 1/6W	1
R259	401 012 5708	CARBON 1K JA 1/4W	1
R260	401 012 5708	CARBON 1K JA 1/4W	1
R263	401 027 0309	CARBON 47K JA 1/6W	1
R264	401 027 0309	CARBON 47K JA 1/6W	1
R265	401 025 1902	CARBON 15K JA 1/6W	1
R266	401 025 1902	CARBON 15K JA 1/6W	1
R267	401 016 3809	CARBON 2.2K JA 1/4W	1
R268	401 016 3809	CARBON 2.2K JA 1/4W	1
R269	401 016 3809	CARBON 2.2K JA 1/4W	1
R270	401 016 3809	CARBON 2.2K JA 1/4W	1
R271	401 025 3005	CARBON 1.6K JA 1/6W	1
R272	401 025 3005	CARBON 1.6K JA 1/6W	1
R273	402 060 8604	FUSIBLE RES 82 JA 1/4W	1
R274	402 060 8604	FUSIBLE RES 82 JA 1/4W	1
R275	402 060 8406	FUSIBLE RES 2.2 JA 1/4W	1
R276	402 060 8406	FUSIBLE RES 2.2 JA 1/4W	1
R277	402 060 8406	FUSIBLE RES 2.2 JA 1/4W	1
R278	402 060 8406	FUSIBLE RES 2.2 JA 1/4W	1
R279	402 060 8604	FUSIBLE RES 82 JA 1/4W	1
R280	402 060 8604	FUSIBLE RES 82 JA 1/4W	1
R281	401 018 4903	CARBON 33K JA 1/4W	1
R282	401 018 4903	CARBON 33K JA 1/4W	1
R283	401 027 0309	CARBON 47K JA 1/6W	1
R284	401 027 0309	CARBON 47K JA 1/6W	1
R285	401 024 7004	CARBON 1K JA 1/6W	1
R286	401 024 7004	CARBON 1K JA 1/6W	1
R287	401 025 3302	CARBON 16K JA 1/6W	1
R288	401 025 3302	CARBON 16K JA 1/6W	1
R289	402 061 0706	FUSIBLE RES 820 JA 1/4W	1
R290	402 061 0706	FUSIBLE RES 820 JA 1/4W	1
R291	402 061 0706	FUSIBLE RES 820 JA 1/4W	1
R292	402 061 0706	FUSIBLE RES 820 JA 1/4W	1
R293	402 060 8406	FUSIBLE RES 2.2 JA 1/4W	1
R294	402 060 8406	FUSIBLE RES 2.2 JA 1/4W	1
R295	402 060 8406	FUSIBLE RES 2.2 JA 1/4W	1
R296	402 060 8406	FUSIBLE RES 2.2 JA 1/4W	1
R297	401 061 2604	OXIDE-MT 330 JB 1W	1
R298	401 061 2604	OXIDE-MT 330 JB 1W	1
R299	401 153 3403	OXIDE-MT 0.33 JB 2W	1
R300	401 153 3403	OXIDE-MT 0.33 JB 2W	1
R301	401 153 3403	OXIDE-MT 0.33 JB 2W	1
R302	401 153 3403	OXIDE-MT 0.33 JB 2W	1
R303	401 012 4503	CARBON 100 JA 1/4W	1
R304	401 012 4503	CARBON 100 JA 1/4W	1
R305	401 064 6203	OXIDE-MT 10 JB 2W	1
R306	401 064 6203	OXIDE-MT 10 JB 2W	1
R307	401 025 7805	CARBON 2.2K JA 1/6W	1
R308	401 025 7805	CARBON 2.2K JA 1/6W	1
R309	402 060 8505	FUSIBLE RES 47 JA 1/4W	1
R310	402 060 8505	FUSIBLE RES 47 JA 1/4W	1
R311	401 027 0309	CARBON 47K JA 1/6W	1
R312	401 027 0309	CARBON 47K JA 1/6W	1
R317	401 026 4308	CARBON 3.3K JA 1/6W	1
R318	401 026 4308	CARBON 3.3K JA 1/6W	1
R321	401 025 8208	CARBON 22K JA 1/6W	1
R322	401 025 1902	CARBON 15K JA 1/6W	1
R323	401 025 8208	CARBON 22K JA 1/6W	1
R324	401 027 0309	CARBON 47K JA 1/6W	1
R325	401 061 3601	OXIDE-MT 3.3K JB 1W	1
R326	401 025 8208	CARBON 22K JA 1/6W	1
R327	401 025 8208	CARBON 22K JA 1/6W	1
R328	401 024 7400	CARBON 10K JA 1/6W	1
R329	401 024 7400	CARBON 10K JA 1/6W	1
R330	401 024 7400	CARBON 10K JA 1/6W	1
R331	401 027 2600	CARBON 5.6K JA 1/6W	1
R332	401 026 9907	CARBON 4.7K JA 1/6W	1
R333	401 012 4503	CARBON 100 JA 1/4W	1
R334	401 012 4503	CARBON 100 JA 1/4W	1
R335	401 012 5708	CARBON 1K JA 1/4W	1
R336	401 092 4608	OXIDE-MT 1.2K JB 1W	1
R337	401 025 7102	CARBON 22 JA 1/6W	1
R338	402 061 0805	FUSIBLE RES 10 JA 1/4W	1
R340	401 056 2909	OXIDE-MT 47 JB 1/2W	1
R341	402 061 1000	FUSIBLE RES 33 JA 1/4W	1
R342	401 059 4009	OXIDE-MT 1.5K JB 1W	1
R343	401 026 1307	CARBON 27K JA 1/6W	1
R344	401 026 3905	CARBON 330 JA 1/6W	1

Ref. No.	Part No.	Description	Q'ty
R345	401 024 7004	CARBON 1K JA 1/6W	1
ASSY,PCB,BIAS LEFT			
42	620 212 5794	Assy,PCB,Bias Left	1
Q129	405 022 8209	TR 2SD1682-T	1
or	405 022 8001	TR 2SD1682-S	1
ASSY,PCB,BIAS RIGHT			
43	620 212 5800	Assy,PCB,Bias Right	1
Q130	405 022 8209	TR 2SD1682-T	1
or	405 022 8001	TR 2SD1682-S	1
ASSY,PCB,TRANS			
44	620 212 5817	Assy,PCB,Trans	1
	620 212 5886	PCB,Trans	1
ASSY,PCB,CONTROL			
45	620 211 0363	Assy,PCB,Control	1
	620 206 5519	Shield,Cover	1
	620 206 5526	Shield,Plate	1
	620 204 3319	Spacer,LED,Loud	1
	620 204 3388	Spacer,FL	1
	620 203 6120	Fluorescent Tube,8MT54GK	1
RX501	620 200 0909	Converter,Remote,DET	1
SW501	620 210 0241	Switch,Tact,Taping	1
SW502	620 210 0241	Switch,Tact,Taping	1
SW503	620 210 0241	Switch,Tact,Taping	1
SW504	620 210 0241	Switch,Tact,Taping	1
SW505	620 210 0241	Switch,Tact,Taping	1
SW506	620 210 0241	Switch,Tact,Taping	1
SW507	620 210 0241	Switch,Tact,Taping	1
SW508	620 210 0241	Switch,Tact,Taping	1
SW509	620 210 0241	Switch,Tact,Taping	1
SW510	620 210 0241	Switch,Tact,Taping	1
SW511	620 210 0241	Switch,Tact,Taping	1
SW512	620 210 0241	Switch,Tact,Taping	1
SW513	620 210 0241	Switch,Tact,Taping	1
SW514	620 210 0241	Switch,Tact,Taping	1
SW515	620 210 0241	Switch,Tact,Taping	1
SW516	620 210 0241	Switch,Tact,Taping	1
SW517	620 210 0241	Switch,Tact,Taping	1
SW518	620 210 0241	Switch,Tact,Taping	1
SW519	620 210 0241	Switch,Tact,Taping	1
SW520	620 210 0241	Switch,Tact,Taping	1
SW521	620 210 0241	Switch,Tact,Taping	1
SW522	620 210 0241	Switch,Tact,Taping	1
SW523	620 210 0241	Switch,Tact,Taping	1
SW524	620 210 0241	Switch,Tact,Taping	1
SW525	620 210 0241	Switch,Tact,Taping	1
SW526	620 210 0241	Switch,Tact,Taping	1
VR501	620 205 0393	VR,Slide,2X150KW	1
VR502	620 205 0393	VR,Slide,2X150KW	1
VR503	620 205 0393	VR,Slide,2X150KW	1
VR504	620 205 0393	VR,Slide,2X150KW	1
VR505	620 205 0393	VR,Slide,2X150KW	1
VR506	620 205 0409	VR,Slide,150KW	1
Q501	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1
or	405 012 8509	TR 2SC2021-R	1
Q502	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1
or	405 012 8509	TR 2SC2021-R	1
Q503	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1
or	405 012 8509	TR 2SC2021-R	1
Q504	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1
or	405 012 8509	TR 2SC2021-R	1
Q505	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1
or	405 012 8509	TR 2SC2021-R	1
Q506	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
or	405 012 8509	TR 2SC2021-R	1
Q507	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1
or	405 012 8509	TR 2SC2021-R	1
Q508	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1
or	405 012 8509	TR 2SC2021-R	1
Q509	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1
or	405 012 8509	TR 2SC2021-R	1
Q510	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1
or	405 012 8509	TR 2SC2021-R	1
Q511	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1
or	405 012 8509	TR 2SC2021-R	1
Q512	405 004 5103	TR 2SA608-G-SPA-AC	1
or	405 004 4601	TR 2SA608-F-SPA-AC	1
Q513	405 057 6300	TR 2SC4038-S-TL2	1
or	405 057 6409	TR 2SC4038-R-TL2	1
or	405 012 8608	TR 2SC2021-S	1
or	405 012 8509	TR 2SC2021-R	1
D501	407 008 0405	DIODE GMB01-BT	1
D502	407 008 0405	DIODE GMB01-BT	1
D503	407 008 0405	DIODE GMB01-BT	1
D504	407 008 0405	DIODE GMB01-BT	1
D505	407 008 0405	DIODE GMB01-BT	1
D506	407 008 0405	DIODE GMB01-BT	1
D507	407 008 0405	DIODE GMB01-BT	1
D508	407 008 0405	DIODE GMB01-BT	1
D509	407 008 0405	DIODE GMB01-BT	1
D510	407 008 0405	DIODE GMB01-BT	1
D511	407 008 0405	DIODE GMB01-BT	1
D512	407 008 0405	DIODE GMB01-BT	1
D513	407 008 0405	DIODE GMB01-BT	1
D514	407 008 0405	DIODE GMB01-BT	1
D515	407 005 3805	DIODE DS442-BT	1
D516	407 065 5009	LED SLP-190B-51 (LOUCON)	1
C501	403 050 1308	ELECT 2.2U M 50V	1
C502	403 050 1308	ELECT 2.2U M 50V	1
C503	403 048 7701	ELECT 0.47U M 50V	1
C504	403 048 7701	ELECT 0.47U M 50V	1
C505	403 063 8301	POLYESTER 0.082U K 50V	1
C506	403 063 8301	POLYESTER 0.082U K 50V	1
C507	403 059 5802	POLYESTER 0.022U J 50V	1
C508	403 059 5802	POLYESTER 0.022U J 50V	1
C509	403 062 5004	POLYESTER 5600P J 50V	1
C510	403 062 5004	POLYESTER 5600P J 50V	1
C511	403 059 5802	POLYESTER 0.022U J 50V	1
C512	403 059 5802	POLYESTER 0.022U J 50V	1
C513	403 057 0304	POLYESTER 0.01U J 50V	1
C514	403 057 0304	POLYESTER 0.01U J 50V	1
C515	403 061 8006	POLYESTER 4700P J 50V	1
C516	403 061 8006	POLYESTER 4700P J 50V	1
C517	403 058 1003	POLYESTER 1500P J 50V	1
C518	403 058 1003	POLYESTER 1500P J 50V	1
C519	403 074 9205	CERAMIC 680P K 50V	1
C520	403 074 9205	CERAMIC 680P K 50V	1
C521	403 038 2402	ELECT 100U M 6.3V	1
C522	403 071 6207	CERAMIC 220P K 50V	1
C523	403 073 7004	CERAMIC 470P K 50V	1
R501	401 026 6609	CARBON 390 JA 1/6W	1
R502	401 026 6609	CARBON 390 JA 1/6W	1
R503	401 026 6609	CARBON 390 JA 1/6W	1
R504	401 026 6609	CARBON 390 JA 1/6W	1
R505	401 026 6609	CARBON 390 JA 1/6W	1
R506	401 026 6609	CARBON 390 JA 1/6W	1
R507	401 026 6609	CARBON 390 JA 1/6W	1
R508	401 026 6609	CARBON 390 JA 1/6W	1
R509	401 026 6609	CARBON 390 JA 1/6W	1
R510	401 026 6609	CARBON 390 JA 1/6W	1
R511	401 024 7400	CARBON 10K JA 1/6W	1
R512	401 024 7400	CARBON 10K JA 1/6W	1
R513	401 024 7400	CARBON 10K JA 1/6W	1

Ref. No.	Part No.	Description	Q'ty
R514	401 024 7400	CARBON 10K JA 1/6W	1
R515	401 024 7400	CARBON 10K JA 1/6W	1
R516	401 024 7400	CARBON 10K JA 1/6W	1
R517	401 024 7400	CARBON 10K JA 1/6W	1
R518	401 024 7400	CARBON 10K JA 1/6W	1
R519	401 024 7400	CARBON 10K JA 1/6W	1
R520	401 024 7400	CARBON 10K JA 1/6W	1
R521	401 027 8305	CARBON 820 JA 1/6W	1
R522	401 027 8305	CARBON 820 JA 1/6W	1
R523	401 024 7004	CARBON 1K JA 1/6W	1
R524	401 024 7004	CARBON 1K JA 1/6W	1
R525	401 024 7004	CARBON 1K JA 1/6W	1
R526	401 024 7004	CARBON 1K JA 1/6W	1
R527	401 024 7004	CARBON 1K JA 1/6W	1
R528	401 024 7004	CARBON 1K JA 1/6W	1
R529	401 024 7004	CARBON 1K JA 1/6W	1
R530	401 024 7004	CARBON 1K JA 1/6W	1
R531	401 025 2305	CARBON 150K JA 1/6W	1
R532	401 025 2305	CARBON 150K JA 1/6W	1
R533	401 027 9005	CARBON 82K JA 1/6W	1
R534	401 027 9005	CARBON 82K JA 1/6W	1
R535	401 027 3003	CARBON 56K JA 1/6W	1
R536	401 027 3003	CARBON 56K JA 1/6W	1
R537	401 027 0309	CARBON 47K JA 1/6W	1
R538	401 027 0309	CARBON 47K JA 1/6W	1
R539	401 026 1307	CARBON 27K JA 1/6W	1
R540	401 026 1307	CARBON 27K JA 1/6W	1
R541	401 024 7400	CARBON 10K JA 1/6W	1
R542	401 027 0309	CARBON 47K JA 1/6W	1
R543	401 024 7400	CARBON 10K JA 1/6W	1
R544	401 027 0309	CARBON 47K JA 1/6W	1
R545	401 025 0004	CARBON 120K JA 1/6W	1
R546	401 025 0004	CARBON 120K JA 1/6W	1
R547	401 024 7400	CARBON 10K JA 1/6W	1
R548	401 023 1706	CARBON 820 JA 1/4W	1

ASSY,PCB,GRAPHIC EQ.

Ref. No.	Part No.	Description	Q'ty
46	620 211 0370	Assy,PCB,Graphic EQ.	1
IC501	409 018 4503	IC LA6458DS	1
C561	403 068 9402	CERAMIC 100P K 50V	1
C562	403 068 9402	CERAMIC 100P K 50V	1
C563	403 068 9402	CERAMIC 100P K 50V	1
C564	403 068 9402	CERAMIC 100P K 50V	1
C565	403 047 1700	ELECT 4.7U M 25V	1
C566	403 047 1700	ELECT 4.7U M 25V	1
R561	401 025 4903	CARBON 180K JA 1/6W	1
R562	401 025 4903	CARBON 180K JA 1/6W	1
R563	401 026 7002	CARBON 3.9K JA 1/6W	1
R564	401 026 7002	CARBON 3.9K JA 1/6W	1
R565	401 026 7002	CARBON 3.9K JA 1/6W	1
R566	401 026 7002	CARBON 3.9K JA 1/6W	1

ASSY,PCB,GRAPHIC-EQ JUMPER

Ref. No.	Part No.	Description	Q'ty
47	620 211 0387	Assy,PCB,Graphic-EQ Jumper	1
CN501	620 211 0028	Connector-P,8P	1

ASSY,PCB,MICOM JUMPER

Ref. No.	Part No.	Description	Q'ty
48	620 211 0394	Assy,PCB,Micom Jumper	1
	620 211 0578	PCB,Micom Jumper	1

ASSY,PCB,MICOM

Ref. No.	Part No.	Description	Q'ty
49	620 212 5824	Assy,PCB,Micom	1
CN602	620 211 0035	Connector-P,14P	1
CN603	620 211 0035	Connector-P,14P	1
CX601	620 026 9070	CSA 4.19M Resonator	1
RB601	620 004 5575	Resistor 4X100K J	1
RB602	620 004 5506	Resistor 6X10K	1
IC601	410 129 7802	IC TMP47C1270N-V205 (BZ)	1
Q601	405 004 5103	TR 2SA608-G-SPA-AC	1
or	405 004 4601	TR 2SA608-F-SPA-AC	1
Q602	405 019 3903	TR 2SC536-G-SPA-AC	1
or	405 019 2807	TR 2SC536-F-SPA-AC	1
Q603	405 004 5103	TR 2SA608-G-SPA-AC	1
or	405 004 4601	TR 2SA608-F-SPA-AC	1
Q604	405 019 3903	TR 2SC536-G-SPA-AC	1
or	405 019 2807	TR 2SC536-F-SPA-AC	1
D601	407 069 1205	DIODE DS441	1
D602	407 008 0405	DIODE GMB01-BT	1
D603	407 008 0405	DIODE GMB01-BT	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
D604	407 008 0405	DIODE GMB01-BT	1
D605	407 008 0405	DIODE GMB01-BT	1
D606	407 008 0405	DIODE GMB01-BT	1
D607	407 008 0405	DIODE GMB01-BT	1
D608	407 005 3805	DIODE DS442-BT	1
D609	407 008 0405	DIODE GMB01-BT	1
C601	403 039 7901	ELECT 100U M 10V	1
C602	404 032 5802	ELECT 100U M 10V	1
C603	403 001 1906	CERAMIC 0.01U M 16V	1
C604	404 032 2207	ELECT 2200U M 10V	1
or	404 052 1303	ELECT 2200U T 5.5V	1
C605	403 177 9201	CERAMIC 33P K 50V	1
C606	403 177 9201	CERAMIC 33P K 50V	1
C607	403 001 1906	CERAMIC 0.01U M 16V	1
C608	403 049 1708	ELECT 1U M 50V	1
C609	403 044 0300	ELECT 47U M 16V	1
C610	403 001 1906	CERAMIC 0.01U M 16V	1
C611	403 069 1207	CERAMIC 1000P K 50V	1
C612	403 001 1906	CERAMIC 0.01U M 16V	1
C613	403 073 7004	CERAMIC 470P K 50V	1
R601	401 020 0801	CARBON 470 JA 1/4W	1
R602	401 026 9907	CARBON 4.7K JA 1/6W	1
R603	401 024 7400	CARBON 10K JA 1/6W	1
R604	401 026 9907	CARBON 4.7K JA 1/6W	1
R605	401 026 4308	CARBON 3.3K JA 1/6W	1
R606	401 025 7805	CARBON 2.2K JA 1/6W	1
R607	401 025 0608	CARBON 1.3K JA 1/6W	1
R608	401 026 9907	CARBON 4.7K JA 1/6W	1
R609	401 027 0309	CARBON 47K JA 1/6W	1
R610	401 024 7400	CARBON 10K JA 1/6W	1
R611	401 027 0309	CARBON 47K JA 1/6W	1
R612	401 027 0309	CARBON 47K JA 1/6W	1
R613	401 027 0507	CARBON 470K JA 1/6W	1
R614	401 024 7707	CARBON 100K JA 1/6W	1
R615	401 024 7400	CARBON 10K JA 1/6W	1
R616	401 024 7400	CARBON 10K JA 1/6W	1
R617	401 024 7400	CARBON 10K JA 1/6W	1

ASSY,PCB,VIDEO JUMPER 1

Ref. No.	Part No.	Description	Q'ty
50	620 211 0417	Assy,PCB,Video Jumper 1	1
	620 211 0042	Connector-P,17P	1

ASSY,PCB,VIDEO IN/OUT

Ref. No.	Part No.	Description	Q'ty
51	620 211 0424	Assy,PCB,Video IN/OUT	1
	620 211 2015	Jack,RCA Pin,1P,YE	1
	620 211 2039	Jack,RCA Pin,3P,YE	1
	620 050 2450	Metal Mount Antenna	1
CN407	620 021 6555	Plug 4P,XH,H	1
CN408	620 021 6548	Plug 2P	1
IC401	409 018 7603	IC LA7016	1
Q401	405 017 9600	TR 2SC3330-T-AC	1
or	405 017 9501	TR 2SC3330-S-AC	1
Q402	405 017 9600	TR 2SC3330-T-AC	1
or	405 017 9501	TR 2SC3330-S-AC	1
Q403	405 017 9600	TR 2SC3330-T-AC	1
or	405 017 9501	TR 2SC3330-S-AC	1
Q404	405 017 9600	TR 2SC3330-T-AC	1
or	405 017 9501	TR 2SC3330-S-AC	1
Q405	405 003 1205	TR 2SA1246-T-AA	1
or	405 038 4509	TR 2SA1246-S-AA	1
Q406	405 017 9600	TR 2SC3330-T-AC	1
or	405 017 9501	TR 2SC3330-S-AC	1
Q407	405 018 2808	TR 2SC3402-AC	1
Q408	405 019 3903	TR 2SC536-G-SPA-AC	1
or	405 019 2807	TR 2SC536-F-SPA-AC	1
D401	407 008 0405	DIODE GMB01-BT	1
D402	407 008 0405	DIODE GMB01-BT	1
D403	407 070 5902	ZENER DIODE GZS4.3Y-BT	1
D404	407 008 0405	DIODE GMB01-BT	1
C401	403 039 7901	ELECT 100U M 10V	1
C402	403 039 7901	ELECT 100U M 10V	1
C403	403 044 0300	ELECT 47U M 16V	1
C404	403 041 5704	ELECT 470U M 10V	1
C405	403 041 5704	ELECT 470U M 10V	1
C406	403 044 0300	ELECT 47U M 16V	1
C407	403 001 1906	CERAMIC 0.01U M 16V	1
C408	403 042 3600	ELECT 100U M 16V	1
C409	403 001 1906	CERAMIC 0.01U M 16V	1
R401	401 027 6608	CARBON 75 JA 1/6W	1
R402	401 027 6608	CARBON 75 JA 1/6W	1
R403	401 026 3905	CARBON 330 JA 1/6W	1
R404	401 026 9600	CARBON 470 JA 1/6W	1
R405	401 026 1000	CARBON 2.7K JA 1/6W	1
R406	401 026 4308	CARBON 3.3K JA 1/6W	1
R407	401 026 1000	CARBON 2.7K JA 1/6W	1
R408	401 026 0409	CARBON 27 JA 1/6W	1
R409	401 026 6609	CARBON 390 JA 1/6W	1
R410	401 026 0409	CARBON 27 JA 1/6W	1
R411	401 025 7805	CARBON 2.2K JA 1/6W	1
R412	401 026 6609	CARBON 390 JA 1/6W	1
R413	401 025 8208	CARBON 22K JA 1/6W	1
R414	401 025 8208	CARBON 22K JA 1/6W	1
R415	401 027 0309	CARBON 47K JA 1/6W	1
R416	401 027 0309	CARBON 47K JA 1/6W	1
R417	401 027 6608	CARBON 75 JA 1/6W	1
R418	401 027 6608	CARBON 75 JA 1/6W	1
R419	402 060 8505	FUSIBLE RES 47 JA 1/4W	1
R420	401 024 7400	CARBON 10K JA 1/6W	1
R421	402 060 8505	FUSIBLE RES 47 JA 1/4W	1

ASSY,PCB,VIDEO JUMPER 2

Ref. No.	Part No.	Description	Q'ty
52	620 211 0431	Assy,PCB,Video Jumper 2	1
C428	403 121 9509	CERAMIC 0.1U Z 50V	1
C429	403 121 9509	CERAMIC 0.1U Z 50V	1

ASSY,PCB,PIN JACK,ANTENNA

Ref. No.	Part No.	Description	Q'ty
53	620 212 5831	Assy,PCB,Pin Jack,Antenna	1
	620 021 7750	Plug 2P	1
	620 201 6566	Socket,Holder,4P	1
	620 211 2046	Jack,RCA Pin,6P,RE/WH	1
PC409	620 209 3437	Wire,Jumper 2P,L = 90	1
IC402	409 166 5308	IC TC9215P	1
C421	403 071 6207	CERAMIC 220P K 50V	1
C422	403 071 6207	CERAMIC 220P K 50V	1
C423	403 071 6207	CERAMIC 220P K 50V	1
C424	403 071 6207	CERAMIC 220P K 50V	1
C425	403 071 6207	CERAMIC 220P K 50V	1
C426	403 071 6207	CERAMIC 220P K 50V	1
R431	401 026 4902	CARBON 330K JA 1/6W	1
R432	401 026 4902	CARBON 330K JA 1/6W	1
R433	401 026 4902	CARBON 330K JA 1/6W	1
R434	401 026 4902	CARBON 330K JA 1/6W	1
R435	401 027 0507	CARBON 470K JA 1/6W	1
R436	401 027 0507	CARBON 470K JA 1/6W	1
R437	401 024 7004	CARBON 1K JA 1/6W	1
R438	401 024 7004	CARBON 1K JA 1/6W	1
R439	401 024 7004	CARBON 1K JA 1/6W	1
R440	401 012 5708	CARBON 1K JA 1/4W	1
R441	401 012 5708	CARBON 1K JA 1/4W	1
R442	401 012 5708	CARBON 1K JA 1/4W	1
R443	401 024 7707	CARBON 100K JA 1/6W	1
R445	401 024 7707	CARBON 100K JA 1/6W	1

ASSY,PCB,SWITCH

Ref. No.	Part No.	Description	Q'ty
54	620 211 0455	Assy,PCB,Switch	1
	620 204 3326	Spacer,LED,Power	1
	620 205 5176	Socket,Holder,11P	1
	620 199 4568	Jack,Headphone,3P, (D6.43)	1
SW701⚠	620 015 2365	Power Switch (POWER)	1
or	620 212 8054	Switch,Push,1-1 (POWER))	1
SW702	620 016 8823	Push Switch 1 Key (SP-A)	1
or	620 212 3714	Switch,Push,2-2 (SP-A)	1
SW703	620 016 8823	Push Switch 1 Key (SP-B)	1
or	620 212 3714	Switch,Push,2-2 (SP-B)	1
D701	407 065 5009	LED SLP-190B-51	1
R701	401 067 9102	OXIDE-MT 390 JB 2W	1
R702	401 067 9102	OXIDE-MT 390 JB 2W	1
R703	401 014 2903	CARBON 150 JA 1/4W	1
R704	401 014 2903	CARBON 150 JA 1/4W	1

ASSY,PCB,SUB TRANS

Ref. No.	Part No.	Description	Q'ty
55	620 212 5848	Assy,PCB,Sub Trans	1
	620 022 2587	EC Terminal 1P	2
	620 185 1953	Push Terminal 8P	1
	614 218 5032	Relay,Power,1P-1T,TV-5	1
	620 205 5176	Socket,Holder,11P	1
	620 211 7461	Socket,Holder,8P	1
	620 202 3496	Fuse Holder	2

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
	620 053 6899	Cover Safety	1
	620 054 8175	Label	1
C711 ⚠	620 006 6679	Capacitor 0.01MF400V	1
F701 ⚠	423 006 4702	FUSE 250V 2.5A	1
PC711	620 211 5337	Wire,Jumper,6P L=200	1
PC712	620 211 5320	Wire,Jumper,5P L=200	1
PC715	620 209 2997	Wire,Jumper,8P L=150	1
W701	620 212 7811	Assy,Connector-P,1P,L=250	1
W702	620 212 7835	Assy,Connector-P,1P,L=180	1
W703	620 212 7842	Assy,Connector-P,1P,L=180	1
W704	620 212 7859	Assy,Connector-P,1P,L=180	1
W705	620 212 7866	Assy,Connector-P,1P,L=180	1
Q711	405 019 3903	TR 2SC536-G-SPA-AC	1
or	405 019 2807	TR 2SC536-F-SPA-AC	1
D702	407 004 9709	DIODE DSK10C	1
D703	407 004 9709	DIODE DSK10C	1
D704	407 004 9709	DIODE DSK10C	1
D705	407 004 9709	DIODE DSK10C	1
D706	407 004 9709	DIODE DSK10C	1
C712	403 069 8404	CERAMIC 0.01U Z 50V	1
C713	403 043 7102	ELECT 330U M 16V	1
C715	403 074 6303	CERAMIC 560P K 50V	1
C716	403 074 6303	CERAMIC 560P K 50V	1
C717	403 074 6303	CERAMIC 560P K 50V	1
C718	403 074 6303	CERAMIC 560P K 50V	1
R711	401 026 9907	CARBON 4.7K JA 1/6W	1
R712	401 027 0309	CARBON 47K JA 1/6W	1
R713	401 025 1605	CARBON 1.5K JA 1/6W	1
ASSY,PCB,VOLUME			
56	620 211 0479	Assy,PCB,Volume	1

Ref. No.	Part No.	Description	Q'ty
	620 202 9078	Socket,Holder,4P	1
	620 202 9108	Socket,Holder,7P	1
PC405	620 211 1445	Wire,Jumper 7P,L=120	1
PC406	620 211 1438	Wire,Jumper 4P,L=120	1
VR401	620 211 1636	VR,Rotary,2X100KA,Motor	1
C451	403 121 9509	CERAMIC 0.1U Z 50V	1
ASSY,PCB,MOTOR			
57	620 211 0486	Assy,PCB,Motor	1
R451	401 025 1605	CARBON 1.5K JA 1/6W	1
ASSY,PCB,VOLUME IND			
58	620 211 0493	Assy,PCB,Volume IND	1
	620 202 9054	Socket,Holder,2P	1
	620 185 2820	Reflector	1
D405	407 062 7204	LED SEL2213C	1
ASSY,PCB,SUB TRANS,EUR			
59	620 212 7897	Assy,PCB,Sub Trans,EUR	1
W706	620 212 7804	Assy,Connector-P,1P,L=320	1
W707	620 212 7828	Assy,Connector-P,1P,L=180	1
W708	620 212 7873	Assy,Connector-P,1P,L=180	1
W709	620 212 7873	Assy,Connector-P,1P,L=180	1

NOTES:

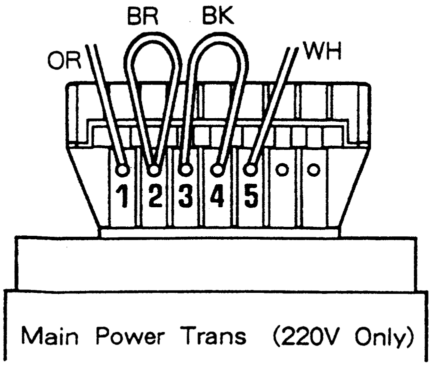
1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

IMPORTANT NOTE

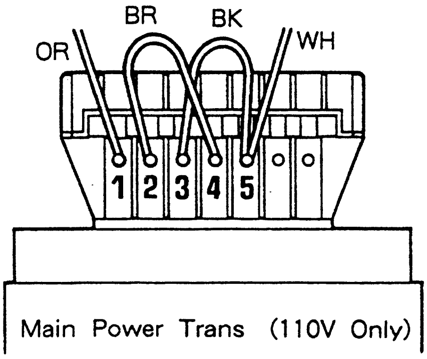
The Amplifier has been Factory-adjusted for operation on 220V AC. The voltage can be changed for operation on 110V AC by making the following changes on the Amplifier inside.

1. Remove the AC plug from the wall outlet.
2. Remove the screws securing the cover.
3. Disconnect Black lead from Power Trans (Main) Terminal No. 4, and then connect it to Power Trans (Main) Terminal No. 5.
4. Disconnect one of the Brown leads from the Power Trans (Main) Terminal No. 2, and connect its lead to the Power Trans (Main) Terminal No. 4.
5. Disconnect Yellow lead from Power Trans (Sub) Terminal AC713 (220V) and then connect it to Power Trans (Sub) Terminal AC712 (110V).

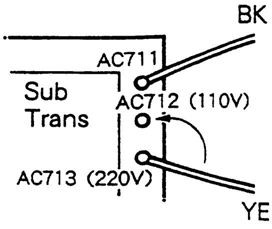
The Amplifier is now ready 110V operation. DO NOT attempt to operate the Amplifier on 220V. Damage will result !



Main Power Trans (220V Only)



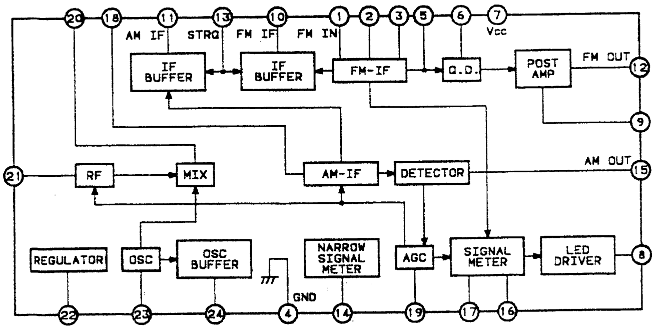
Main Power Trans (110V Only)



IC BLOCK DIAGRAM

IC101 LA1266 BLOCK DIAGRAM

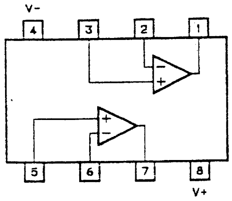
(AM/FM IF Amp. Detector System)



AM IF
STRQ
FM IF
FM IN
Vcc
IF BUFFER
IF BUFFER
FM-IF
Q.D.
POST AMP
FM OUT
RF
MIX
AM-IF
DETECTOR
AM OUT
REGULATOR
OSC
OSC BUFFER
NARROW SIGNAL METER
AGC
SIGNAL METER
LED DRIVER
GND
20
18
11
13
10
1
2
3
5
6
7
12
9
21
15
8
22
23
24
4
14
19
17
16

IC104 UPC4570C BLOCK DIAGRAM

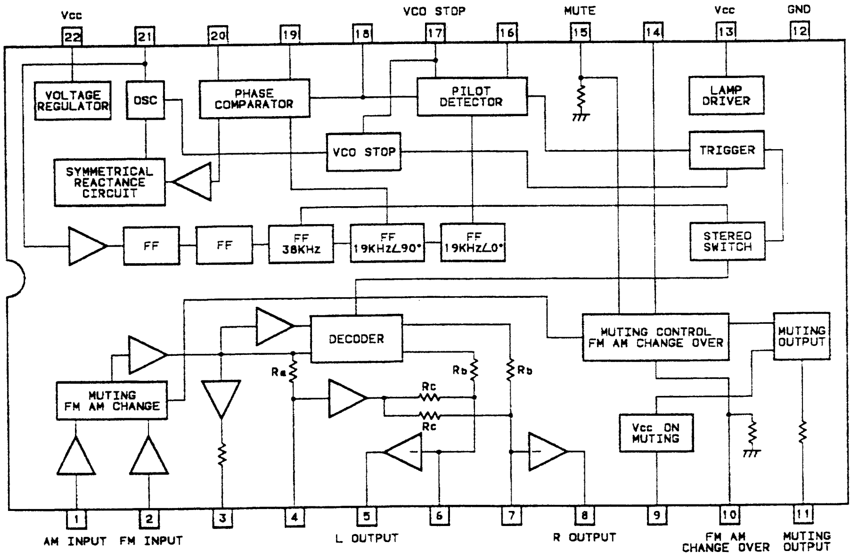
(Dual Operation Amp.)



V-
4
3
2
1
5
6
7
8
V+

IC102 LA3401 BLOCK DIAGRAM

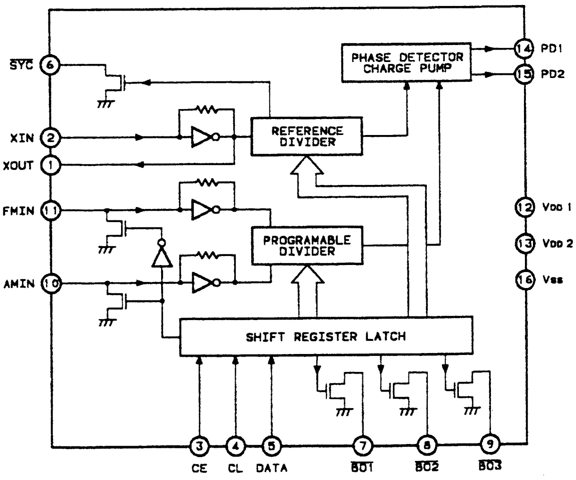
(FM MPX & FM AM Change Control)



Vcc
VCO STOP
MUTE
Vcc
GND
22
21
20
19
18
17
16
15
14
13
12
VOLTAGE REGULATOR
OSC
PHASE COMPARATOR
PILOT DETECTOR
LAMP DRIVER
VCO STOP
TRIGGER
SYMMETRICAL REACTANCE CIRCUIT
FF
FF
FF 38KHz
FF 19KHz∠90°
FF 19KHz∠0°
STEREO SWITCH
DECODER
MUTING CONTROL FM AM CHANGE OVER
MUTING OUTPUT
MUTING FM AM CHANGE
Ra
Rb
Rb
Rc
Rc
Vcc ON MUTING
1
2
3
4
5
6
7
8
9
10
11
AM INPUT
FM INPUT
L OUTPUT
R OUTPUT
FM AM CHANGE OVER
MUTING OUTPUT

IC103 LM7001 BLOCK DIAGRAM

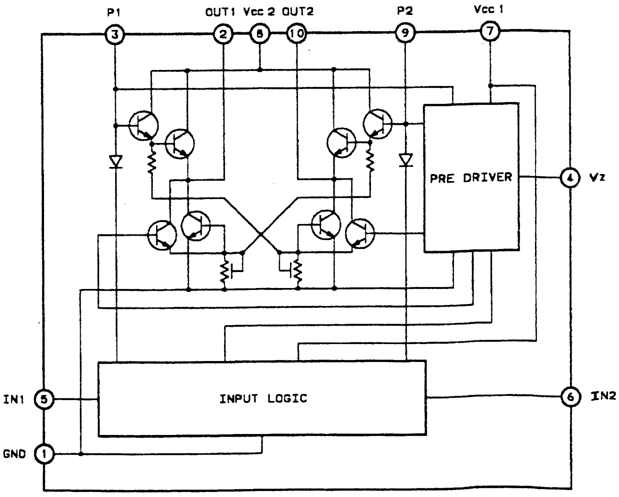
(Phase Lock Loop)



SYC 6
XIN 2
XOUT 1
FMIN 11
AMIN 10
PHASE DETECTOR CHARGE PUMP
REFERENCE DIVIDER
PROGRAMABLE DIVIDER
SHIFT REGISTER LATCH
14 PD1
15 PD2
12 VDD 1
13 VDD 2
16 VSS
3
4
5
7
8
9
CE
CL
DATA
BO1
BO2
BO3

IC108 LB1641 BLOCK DIAGRAM

(Volume Motor Driver)

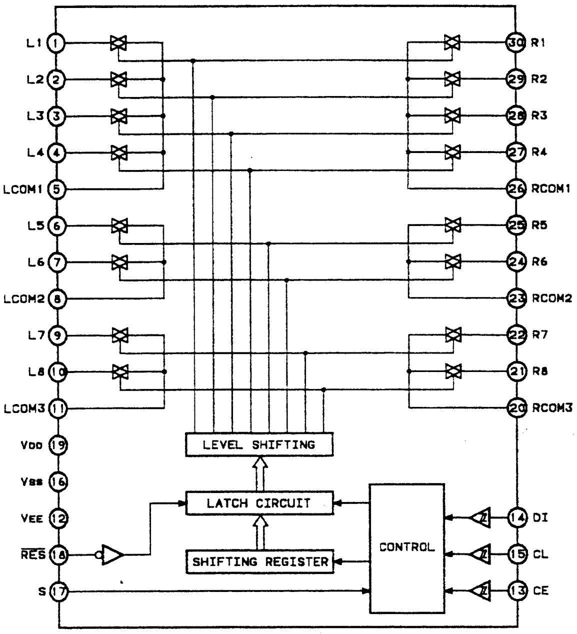


P1
OUT1 Vcc 2 OUT2
P2
Vcc 1
3
2
8
10
9
7
PRE DRIVER
4 Vz
INPUT LOGIC
IN1 5
6 IN2
GND 1

IC BLOCK DIAGRAM (Continued)

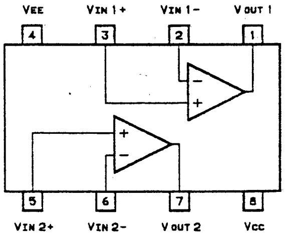
IC105 LC7821 BLOCK DIAGRAM

(Function Selector)


L1 1
L2 2
L3 3
L4 4
LCOM1 5
L5 6
L6 7
LCOM2 8
L7 9
L8 10
LCOM3 11
VDD 19
VSS 16
VEE 12
RES 18
S 17
30 R1
29 R2
28 R3
27 R4
26 RCOM1
25 R5
24 R6
23 RCOM2
22 R7
21 R8
20 RCOM3
14 DI
15 CL
13 CE
LEVEL SHIFTING
LATCH CIRCUIT
SHIFTING REGISTER
CONTROL

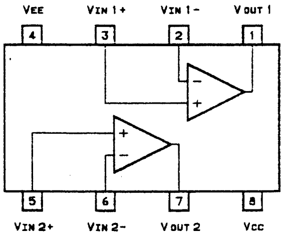
IC106 LA6458D BLOCK DIAGRAM

(Dual Operation Amp.)


VEE
VIN 1+
VIN 1-
VOUT 1
4
3
2
1
5
6
7
8
VIN 2+
VIN 2-
VOUT 2
VCC

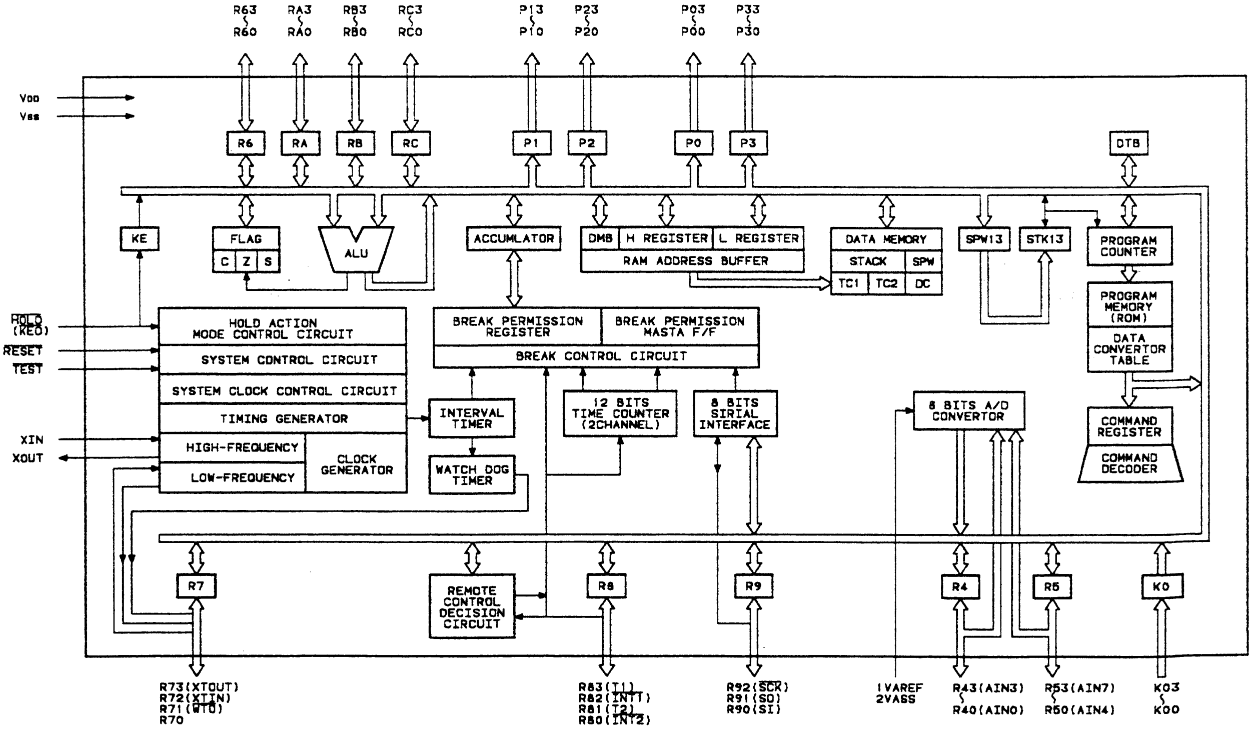
IC501 LA6458DS BLOCK DIAGRAM

(Dual Operation Amp.)


VEE
VIN 1+
VIN 1-
VOUT 1
4
3
2
1
5
6
7
8
VIN 2+
VIN 2-
VOUT 2
VCC

IC601 TMP47C1270N-V205(BZ) BLOCK DIAGRAM

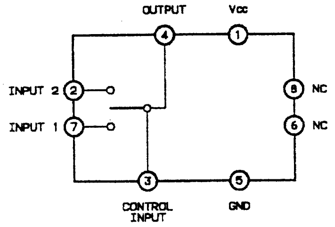
(Tuner/Function Control Micro Computer)


R63 ~ R60
RA3 ~ RA0
RB3 ~ RB0
RC3 ~ RC0
P13 ~ P10
P23 ~ P20
P03 ~ P00
P33 ~ P30
VDD
VSS
R6
RA
RB
RC
P1
P2
P0
P3
DTB
KE
FLAG
C Z S
ALU
ACCUMLATOR
DMB
H REGISTER
L REGISTER
RAM ADDRESS BUFFER
DATA MEMORY
STACK
SPW
TC1
TC2
DC
SPW13
STK13
PROGRAM COUNTER
PROGRAM MEMORY (ROM)
DATA CONVERTOR TABLE
COMMAND REGISTER
COMMAND DECODER
HOLD (KEO)
RESET
TEST
XIN
XOUT
HOLD ACTION MODE CONTROL CIRCUIT
SYSTEM CONTROL CIRCUIT
SYSTEM CLOCK CONTROL CIRCUIT
TIMING GENERATOR
HIGH-FREQUENCY
LOW-FREQUENCY
CLOCK GENERATOR
BREAK PERMISSION REGISTER
BREAK PERMISSION MASTA F/F
BREAK CONTROL CIRCUIT
INTERVAL TIMER
WATCH DOG TIMER
12 BITS TIME COUNTER (2CHANNEL)
8 BITS SIRIAL INTERFACE
8 BITS A/D CONVERTOR
R7
REMOTE CONTROL DECISION CIRCUIT
R8
R9
R4
R5
K0
R73(XTOUT)
R72(XTIN)
R71(WTO)
R70
R83(TI)
R82(INT1)
R81(T2)
R80(INT2)
R92(SCK)
R91(SO)
R90(SI)
1VAREF
2VASS
R43(AIN3) ~ R40(AIN0)
R53(AIN7) ~ R50(AIN4)
K03 ~ K00

IC BLOCK DIAGRAM (Continued)

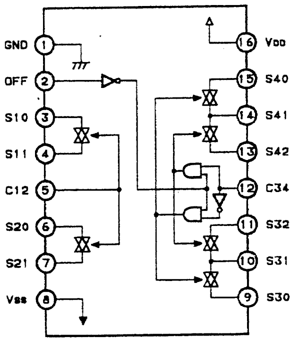
IC401 LA7016 BLOCK DIAGRAM

(VIDEO Input Control)


OUTPUT
Vcc
4
1
INPUT 2
2
INPUT 1
7
8
NC
6
NC
3
5
CONTROL INPUT
GND

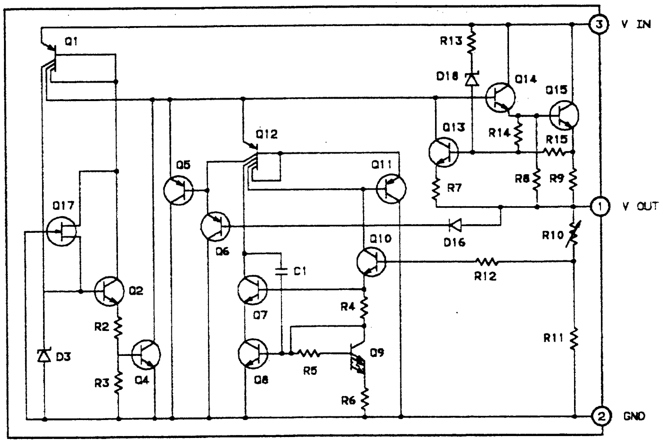
IC402 TC9215P BLOCK DIAGRAM

(Loudness Control)


GND
1
OFF
2
S10
3
S11
4
C12
5
S20
6
S21
7
Vss
8
16
VDD
15
S40
14
S41
13
S42
12
C34
11
S32
10
S31
9
S30

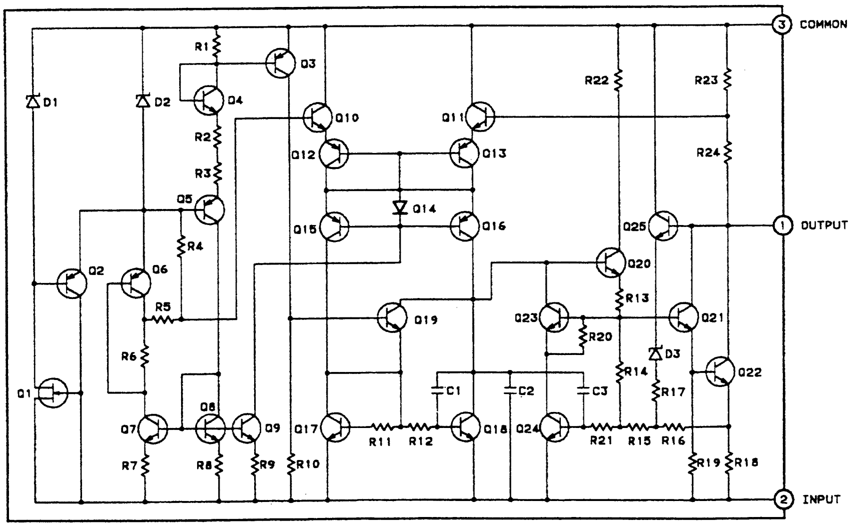
IC111 NJM78L15A BLOCK DIAGRAM

(Constant Voltage Power Supply)


3
V IN
Q1
R13
D18
Q14
Q15
Q13
R14
R15
Q12
Q5
Q11
R7
R8
R9
1
V OUT
Q17
Q6
D16
Q10
R10
C1
R12
Q2
Q7
R4
R2
D3
Q4
Q9
R11
R3
Q8
R5
R6
2
GND

IC112 NJM79L15A BLOCK DIAGRAM

(Constant Voltage Power Supply)


3
COMMON
R1
Q3
R22
R23
D1
D2
Q4
Q10
Q11
R2
Q12
Q13
R24
R3
Q14
Q5
Q15
Q16
Q25
1
OUTPUT
R4
Q2
Q6
Q20
R13
R5
Q19
Q23
Q21
R20
R6
D3
R14
Q22
Q1
C1
C2
C3
R17
Q8
Q7
Q9
Q17
Q18
Q24
R11
R12
R21
R15
R16
R7
R8
R9
R10
R19
R18
2
INPUT

REFERENCE VOLTAGE TABLE OF IC & TRANSISTOR LEAD

MAIN P.C.BOARD

IC PIN NUMBERS DC VOLTAGES

Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC101	LA1266	2.5V	2.5V	2.5V	0V	11.7V	11.6V	11.5V	0V	3.8V	2.5V	2.8V	3.2V	0V	1.4V	1.5V	0V	0V	2.5V	1.5V	0V
		21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
		4.0V	4.0V	4.0V	3.2V	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
IC102	LA3401	3.1V	2.9V	3.1V	3.1V	3.1V	3.1V	3.1V	3.0V	3.1V	0V	0V	0V	5.0V	5.0V	0V	2.8V	7.3V	4.4V	4.4V	5.5V
		21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
		1.7V	11.1V	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
IC103	LM7001	1.5V	1.5V	0V	0V	0V	0V	0V	11.5V	0.2V	0V	2.6V	5.3V	5.3V	0.1V	1.0V	0V	–	–	–	–
IC104	LA6462D	0V	0V	0V	-14.3V	0V	0V	0V	14.1V	–	–	–	–	–	–	–	–	–	–	–	–
IC105	LC7821	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	-15.0V	0V	0V	0V	0V	0V	14.7V	14.7V	0V
		21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
		0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	–	–	–	–	–	–	–	–	–	–
IC106	LA6458D	0V	0V	0V	-15.0V	0V	0V	0V	14.7V	–	–	–	–	–	–	–	–	–	–	–	–
IC107	TC9215P	0V	0V	0V	0V	0V	0V	0V	-15.0V	0V	0V	0V	5.8V	0V	0V	0V	14.7V	–	–	–	–
IC108	LB1641	0V	0.5V	0.7V	0.5V	0V	0V	13.7V	13.7V	0.7V	0.5V	–	–	–	–	–	–	–	–	–	–
IC111	NJM78L15A	14.7V	0V	20.2V	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
IC112	NJM79L15A	-15.0V	-20.5V	0V	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
IC113	NJM78M12FA	11.7V	0V	18.7V	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

TRANSISTOR DC VOLTAGES

Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q105	2SC2839	1.8V	11.8V	1.1V	Q127	2SC2910	-48.5V	-1.0V	-49.2V	Q146	2SA608	0V	-14.9V	0V
Q108	2SA608	10.5V	11.1V	11.1V	Q128	2SC2910	-48.6V	-1.0V	-49.1V	Q147	2SC536	-14.9V	5.6V	-15.0V
Q109	2SC536	0.6V	0V	0V	Q129	2SD1682	0V	1.0V	-1.0V	Q148	2SC2274	0.6V	0V	0V
Q110	2SA608	11.5V	0V	11.6V	Q130	2SD1682	-0.4V	1.0V	-1.0V	Q149	2SD1682	12.9V	0V	13.6V
Q112	2SA1348	0V	5.0V	5.0V	Q131	2SC536	0V	0.9V	0V	Q151	2SD734	6.3V	10.6V	5.6V
Q113	2SC536	0.7V	0V	0V	Q132	2SC536	0V	1.0V	0V	Q152	2SC3402	0V	11.7V	0V
Q114	2SC536	0.7V	0V	0V	Q133	2SA608	0V	-0.9V	0V	Q153	2SA1348	11.7V	0V	11.7V
Q116	2SA1348	5.0V	-15.0V	5.0V	Q134	2SA608	0V	-0.9V	0V	Q154	2SC3402	4.2V	0V	0V
Q117	2SA1348	5.0V	-15.0V	5.0V	Q135	2SC3902	1.0V	50.7V	0.5V	Q155	2SA1348	0V	11.7V	11.7V
Q119	2SC3792	-15.0V	0V	0V	Q136	2SC3902	1.1V	50.8V	0.5V	Q156	2SA1348	4.7V	0V	0.6V
Q120	2SC3792	-14.9V	0V	0V	Q137	2SA1507	-1.0V	-50.8V	-0.5V					
Q121	2SC3792	-14.9V	0V	0V	Q138	2SA1507	-1.0V	-50.7V	-0.5V			**D**	**G**	**S**
Q122	2SC3792	-14.9V	0V	0V	Q139	2SC4467	0.5V	50.8V	0V	Q106	2SK246	7.8V	4.0V	10.8V
Q123	2SC3066	0V	48.7V	-0.6V	Q140	2SC4467	0.5V	50.8V	0V	Q107	2SK583	0V	0.9V	0V
Q124	2SC3066	0V	48.8V	-0.6V	Q141	2SA1694	-0.5V	-50.8V	0V	Q150	2SK246	20.1V	13.5V	13.6V
Q125	2SA1208	48.8V	1.0V	49.3V	Q142	2SA1694	-0.5V	-50.7V	0V					
Q126	2SA1208	48.7V	1.0V	49.2V	Q145	2SC536	0V	5.6V	0V					

MICOM P.C.BOARD

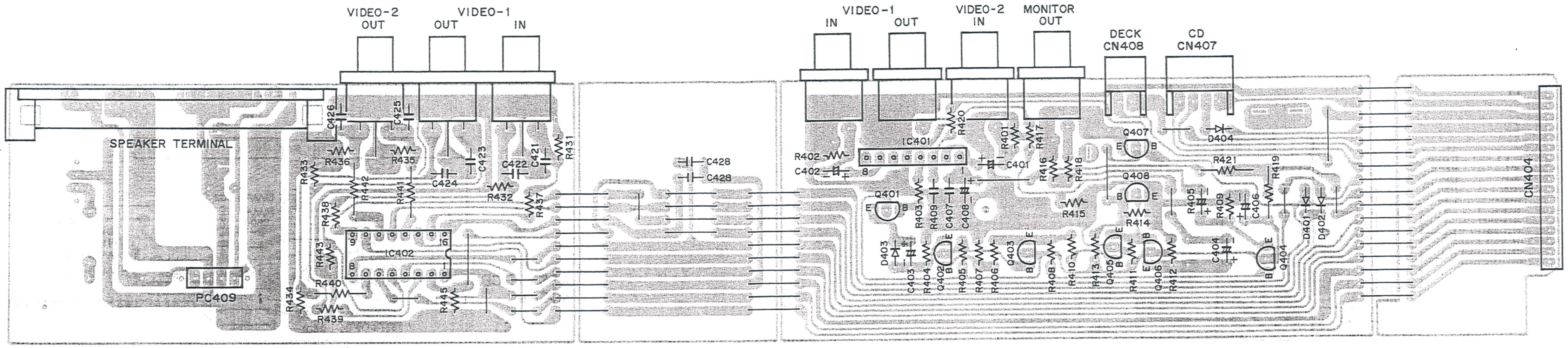
IC PIN NUMBERS DC VOLTAGES

Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC601	TMP47C1270N	-24.5V	-17.1V	-14.2V	-7.8V	-14.2V	-17.4V	-24.1V	-24.1V	-17.4V	-10.7V	-7.9V	-17.1V	-24.1V	0V	5.0V	5.0V	0V	0V	2.2V	2.3V
		21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
		4.7V	5.1V	1.5V	1.1V	0V	0V	1.1V	0V	0V	0V	5.0V	0V	2.8V	0V	5.0V	0V	5.0V	5.0V	5.0V	0V
		41	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
		5.5V	5.6V	5.0V	0V	0V	0V	0V	-24.4V	-24.4V	-24.4V	4.7V	-24.1V	4.7V	-24.4V	-24.2V	-21.5V	-21.4V	-21.4V	-21.4V	-21.5V
		61	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
		-21.5V	-21.3V	-21.3V	4.8V	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

TRANSISTOR DC VOLTAGES

Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q601	2SA608	4.8V	0V	2.0V	Q603	2SA608	5.6V	0V	5.6V
Q602	2SC536	0V	4.7V	0V	Q604	2SC536	0V	5.1V	0V

VIDEO IN/OUT & PIN JACK, ANTENNA P.C.BOARD
(BOTTOM VIEW)

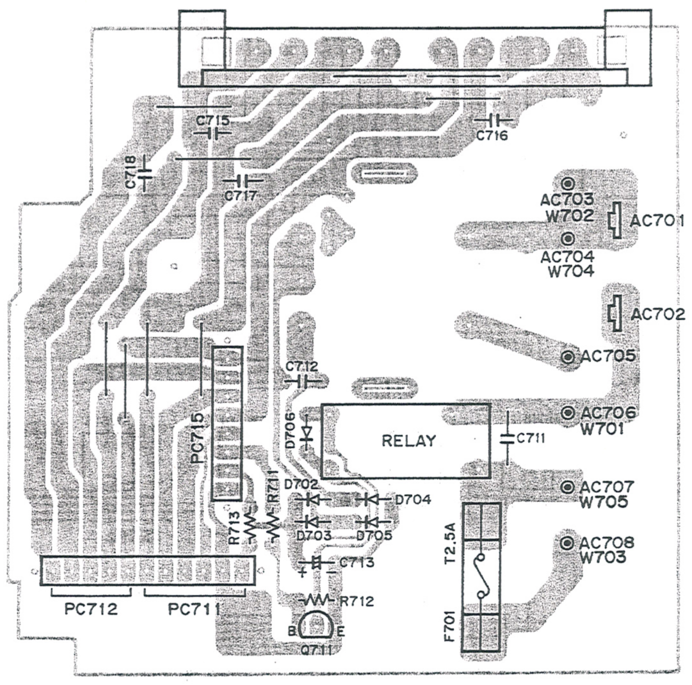

VIDEO-2
OUT
VIDEO-1
OUT
IN
VIDEO-1
IN
OUT
VIDEO-2
IN
MONITOR
OUT
DECK
CN408
CD
CN407
SPEAKER TERMINAL
PC409
IC401
IC402
CN404
C426
C425
C424
C423
C422
C421
C428
C402
C401
C403
C404
C406
C407
C408
R402
R403
R404
R405
R406
R407
R408
R409
R410
R411
R412
R413
R414
R415
R416
R417
R418
R419
R420
R421
R401
R431
R432
R433
R434
R435
R436
R437
R438
R439
R440
R441
R442
R443
R445
Q401
Q402
Q403
Q404
Q405
Q406
Q407
Q408
D401
D402
D403
D404

VIDEO P.C.BOARD

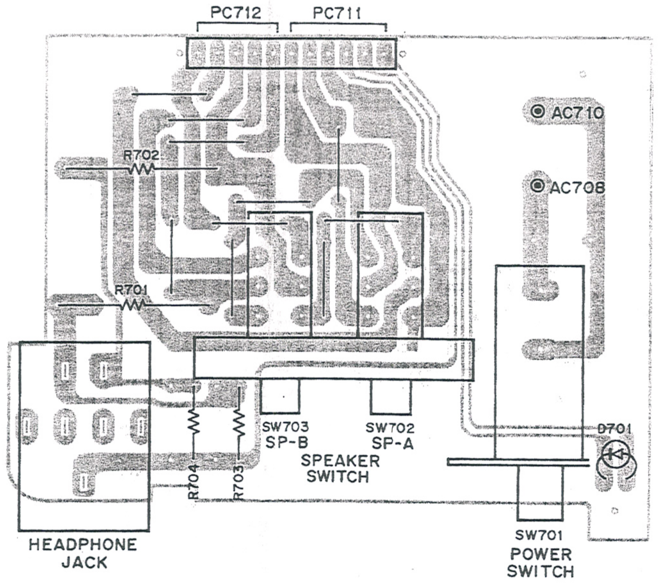
IC PIN NUMBERS DC VOLTAGES																	
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC401	LA7016	11.3V	7.4V	0V	0V	0V	0V	7.3V	0V	–	–	–	–	–	–	–	–
IC402	TC9215P	0V	11.8V	0V	0V	11.2V	0V	0V	–15.0V	0V	0V	0.4V	0V	0V	0V	0V	14.7V

TRANSISTOR DC VOLTAGES									
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q401	2SC3330	6.7V	10.6V	6.0V	Q405	2SA1246	0V	0V	6.0V
Q402	2SC3330	2.1V	2.3V	2.7V	Q406	2SC3330	0V	10.6V	0V
Q403	2SC3330	6.0V	10.6V	6.7V	Q407	2SC3402	0V	0.6V	0V
Q404	2SC3330	5.4V	10.6V	6.0V	Q408	2SC536	0V	0V	0.7V

SUB TRANS P.C.BOARD
(BOTTOM VIEW)


C715
C716
C718
C717
AC703
W702
AC701
AC704
W704
AC702
AC705
C712
AC706
W701
RELAY
C711
PC715
D706
R711
D702
D704
D703
D705
R713
AC707
W705
AC708
W703
C713
R712
T2.5A
F701
PC712
PC711
Q711

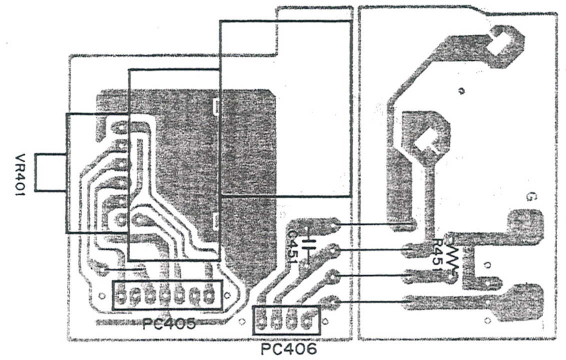
SWITCH P.C.BOARD
(BOTTOM VIEW)

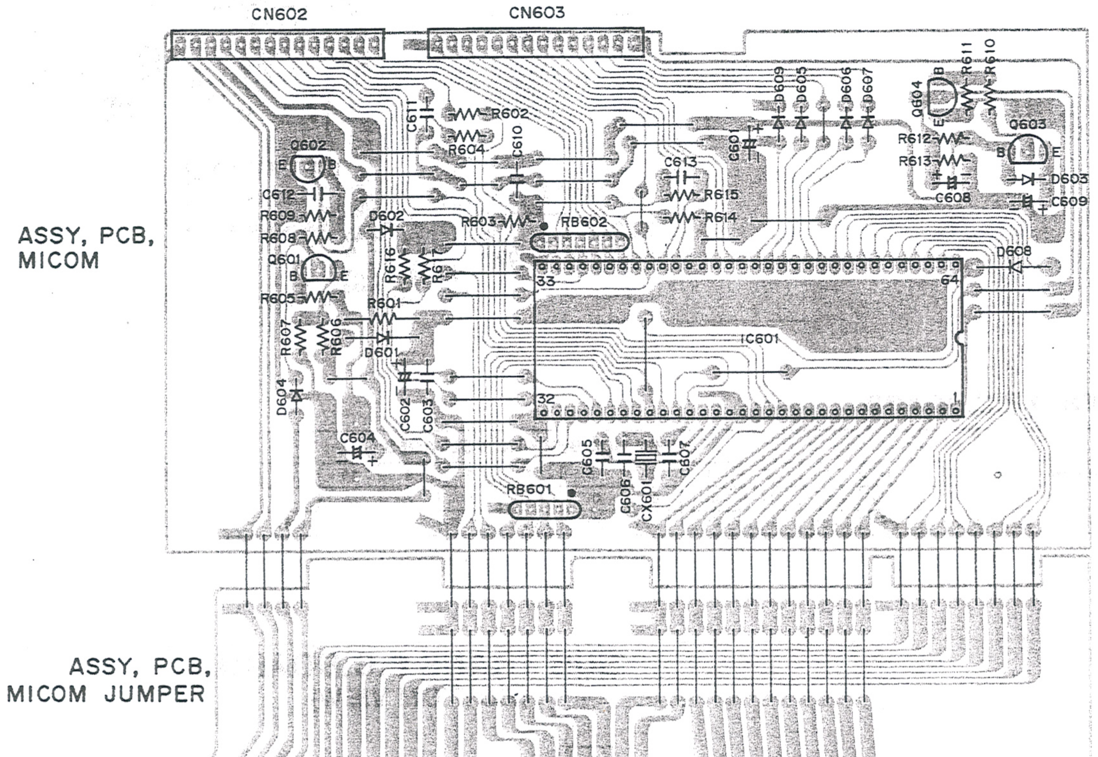

PC712
PC711
AC710
AC708
R702
R701
SW703
SP-B
SW702
SP-A
SPEAKER
SWITCH
R704
R703
HEADPHONE
JACK
D701
SW701
POWER
SWITCH

SUB TRANS P.C.BOARD

TRANSISTOR DC VOLTAGES				
Ref. No.	DEVICE	B	C	E
Q711	2SC536	0.7V	0V	0V

VOLUME/MOTOR/MICOM/CONTROL/GRAPHIC EQ P.C.BOARD
(BOTTOM VIEW)


VR401
C451
R451
PC405
PC406

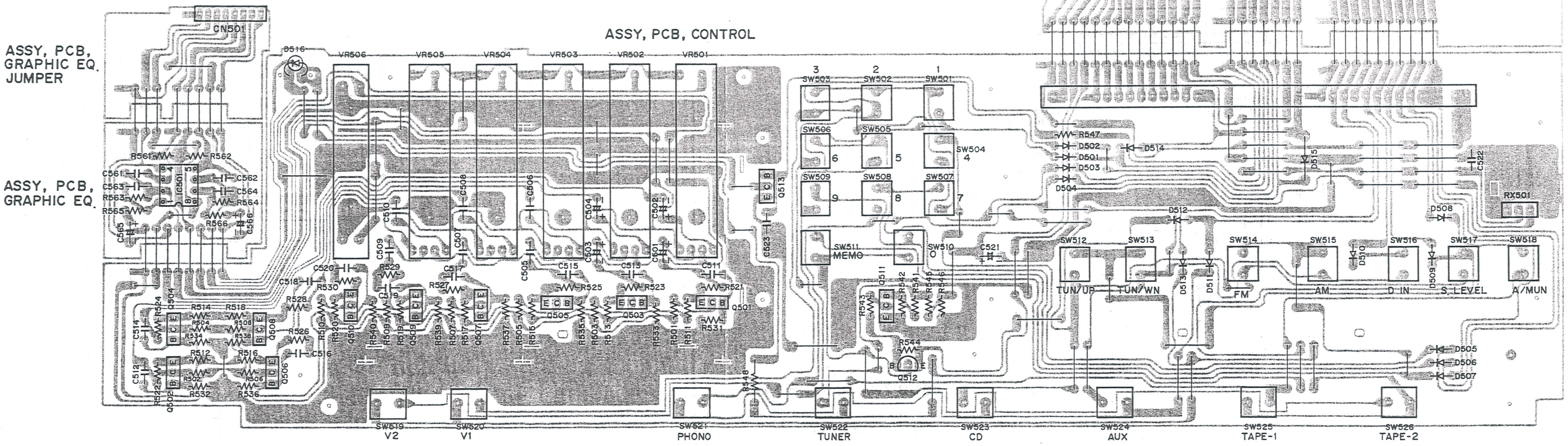

CN602
CN603
ASSY, PCB,
MICOM
IC601
Q601
Q602
Q603
Q604
D601
D602
D603
D604
D605
D606
D607
D608
D609
RB601
RB602
CX601
33
64
32
ASSY, PCB,
MICOM JUMPER

GRAPHIC EQ. P.C.BOARD

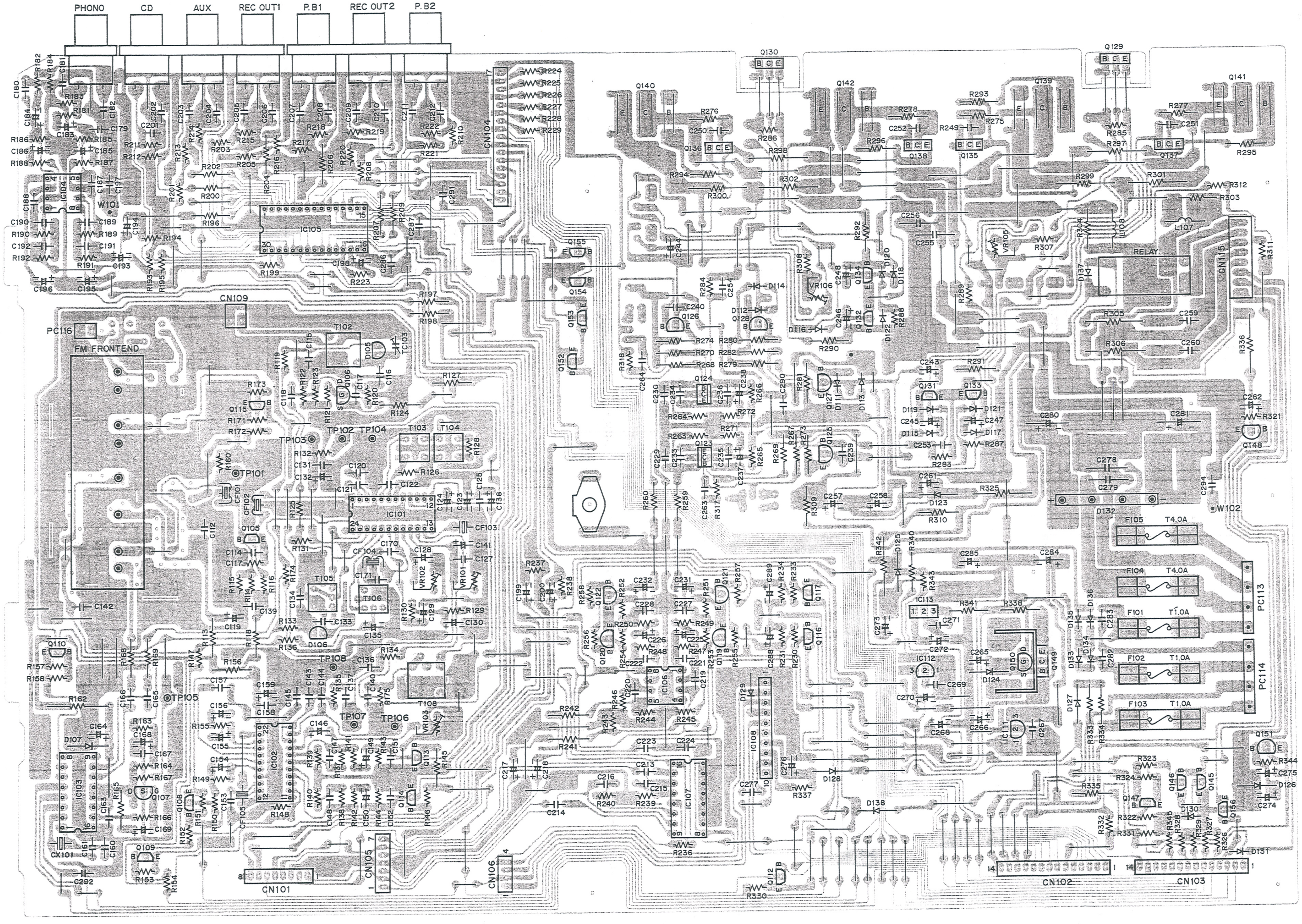
IC PIN NUMBERS DC VOLTAGES									
Ref. No.	DEVICE	1	2	3	4	5	6	7	8
IC501	LA6458DS	0V	0V	0V	− 14.7V	0V	0V	0V	14.7V

CONTROL P.C.BOARD

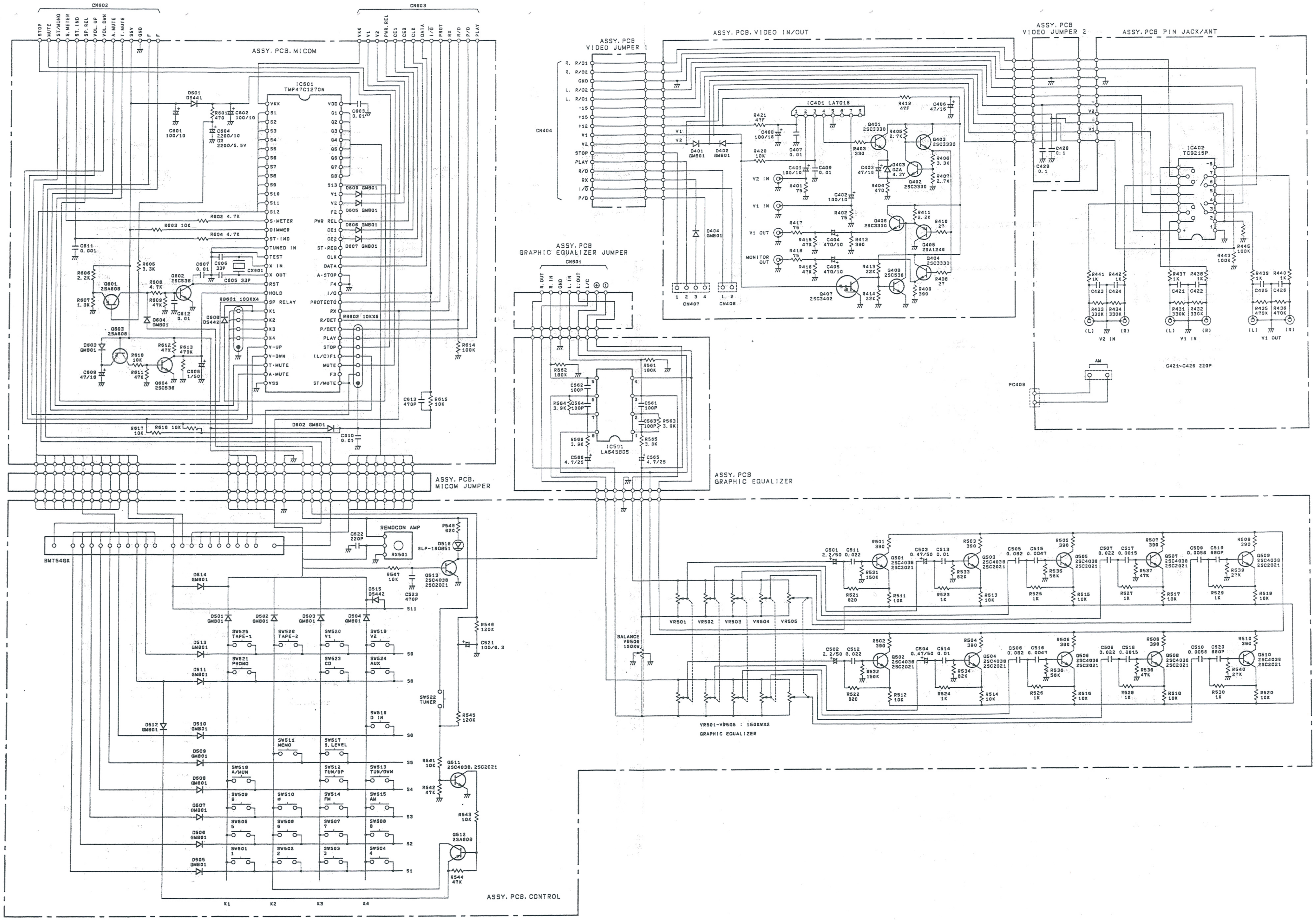
TRANSISTOR DC VOLTAGES									
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q501,502	2SC4038	0V	15.0V	0.6V	Q509,510	2SC4038	0V	15.0V	0.6V
Q503,504	2SC4038	0V	15.0V	0.6V	Q511	2SC4038	0V	0V	0V
Q505,506	2SC4038	0V	15.0V	0.6V	Q512	2SA608	4.3V	− 0.1V	4.5V
Q507,508	2SC4038	0V	15.0V	0.6V	Q513	2SC4038	0V	4.4V	0V


ASSY, PCB,
GRAPHIC EQ.
JUMPER
CN501
ASSY, PCB,
GRAPHIC EQ.
IC501
ASSY, PCB, CONTROL
VR506
VR505
VR504
VR503
VR502
VR501
D516
3
SW503
2
SW502
1
SW501
SW506
6
SW505
5
SW504
4
SW509
9
SW508
8
SW507
7
SW511
MEMO
SW510
0
SW512
TUN/UP
SW513
TUN/WN
SW514
FM
SW515
AM
SW516
D IN
SW517
S.LEVEL
SW518
A/MUN
RX501
Q501
Q503
Q505
Q507
Q509
Q510
Q511
Q512
Q513
SW519
V2
SW520
V1
SW521
PHONO
SW522
TUNER
SW523
CD
SW524
AUX
SW525
TAPE-1
SW526
TAPE-2

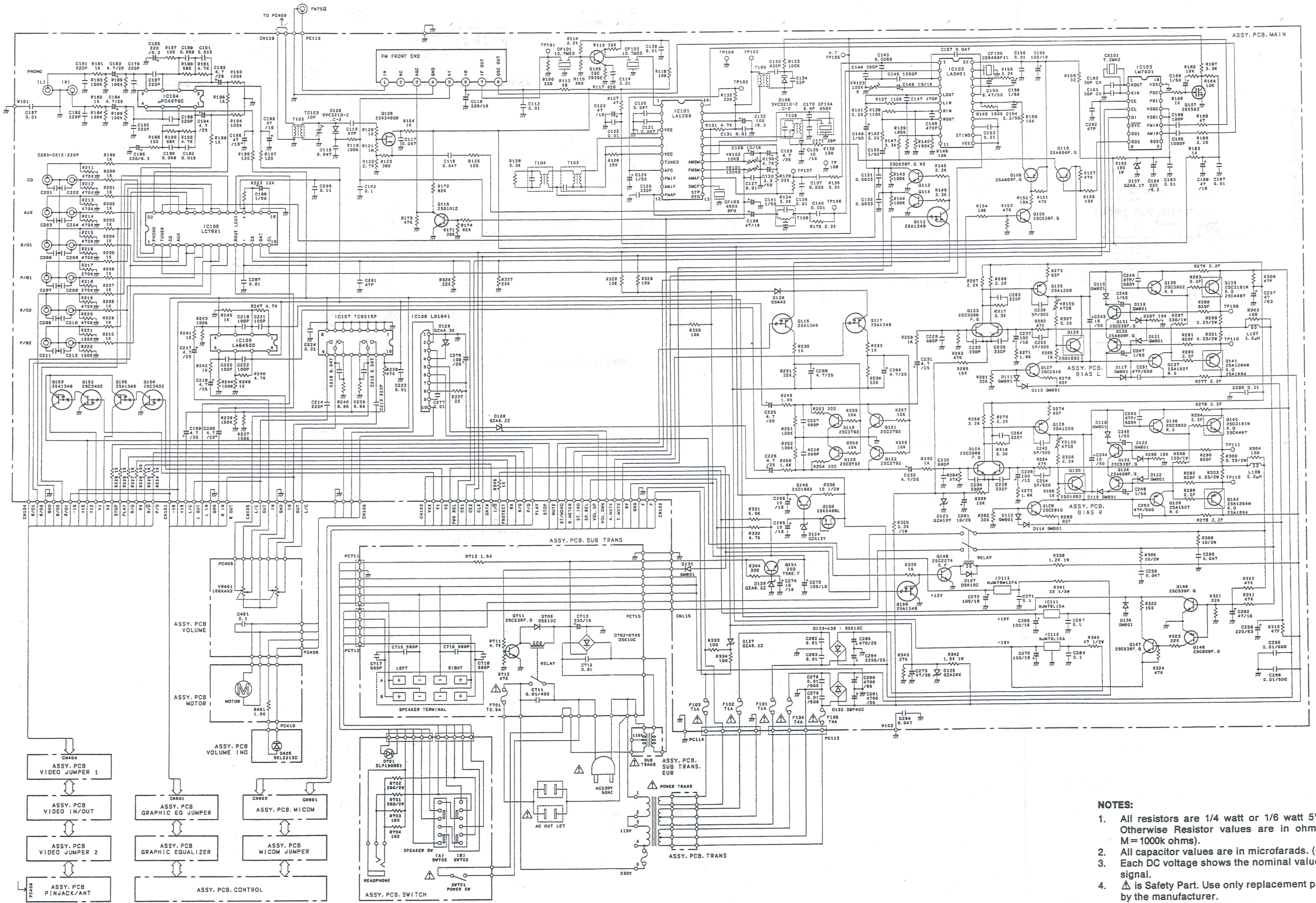
MAIN P.C.BOARD
(BOTTOM VIEW)


PHONO
CD
AUX
REC OUT1
P.B1
REC OUT2
P.B2
CN104
CN109
PC116
FM FRONTEND
IC104
IC105
IC101
IC102
IC103
IC106
IC107
IC108
IC112
IC113
T102
T103
T104
T105
T106
T108
TP101
TP102
TP103
TP104
TP105
TP106
TP107
TP108
CF101
CF102
CF103
CF104
CF105
CX101
W101
W102
VR101
VR102
VR103
VR105
VR106
Q129
Q130
Q139
Q140
Q141
Q142
RELAY
CN115
L107
L108
F101 T1.0A
F102 T1.0A
F103 T1.0A
F104 T4.0A
F105 T4.0A
PC113
PC114
CN101
CN102
CN103
CN105
CN106

SCHEMATIC DIAGRAM (MICOM CONTROL P.C.BOARD Section)


CN602
CN603
ASSY. PCB. MICOM
IC601
TMP47C1270N
ASSY. PCB.
MICOM JUMPER
BMT54GK
REMOCON AMP
RX501
ASSY. PCB. CONTROL
K1
K2
K3
K4
SW525
TAPE-1
SW526
TAPE-2
SW520
V1
SW519
V2
SW521
PHONO
SW523
CD
SW524
AUX
SW522
TUNER
SW518
D IN
SW511
MEMO
SW517
S. LEVEL
SW516
A/MUN
SW512
TUN/UP
SW513
TUN/DWN
SW509
9
SW510
0
SW514
FM
SW515
AM
SW505
5
SW506
6
SW507
7
SW508
8
SW501
1
SW502
2
SW503
3
SW504
4
ASSY. PCB
VIDEO JUMPER 1
ASSY. PCB. VIDEO IN/OUT
ASSY. PCB
VIDEO JUMPER 2
ASSY. PCB PIN JACK/ANT
CN404
IC401 LA7016
IC402
TC9215P
CN407
CN408
V2 IN
V1 IN
V1 OUT
MONITOR
OUT
C421~C426 220P
PC409
AM
ASSY. PCB
GRAPHIC EQUALIZER JUMPER
CN501
IC501
LA6458DS
ASSY. PCB
GRAPHIC EQUALIZER
BALANCE
VR506
150KW
VR501
VR502
VR503
VR504
VR505
VR501~VR505 : 150KWX2
GRAPHIC EQUALIZER

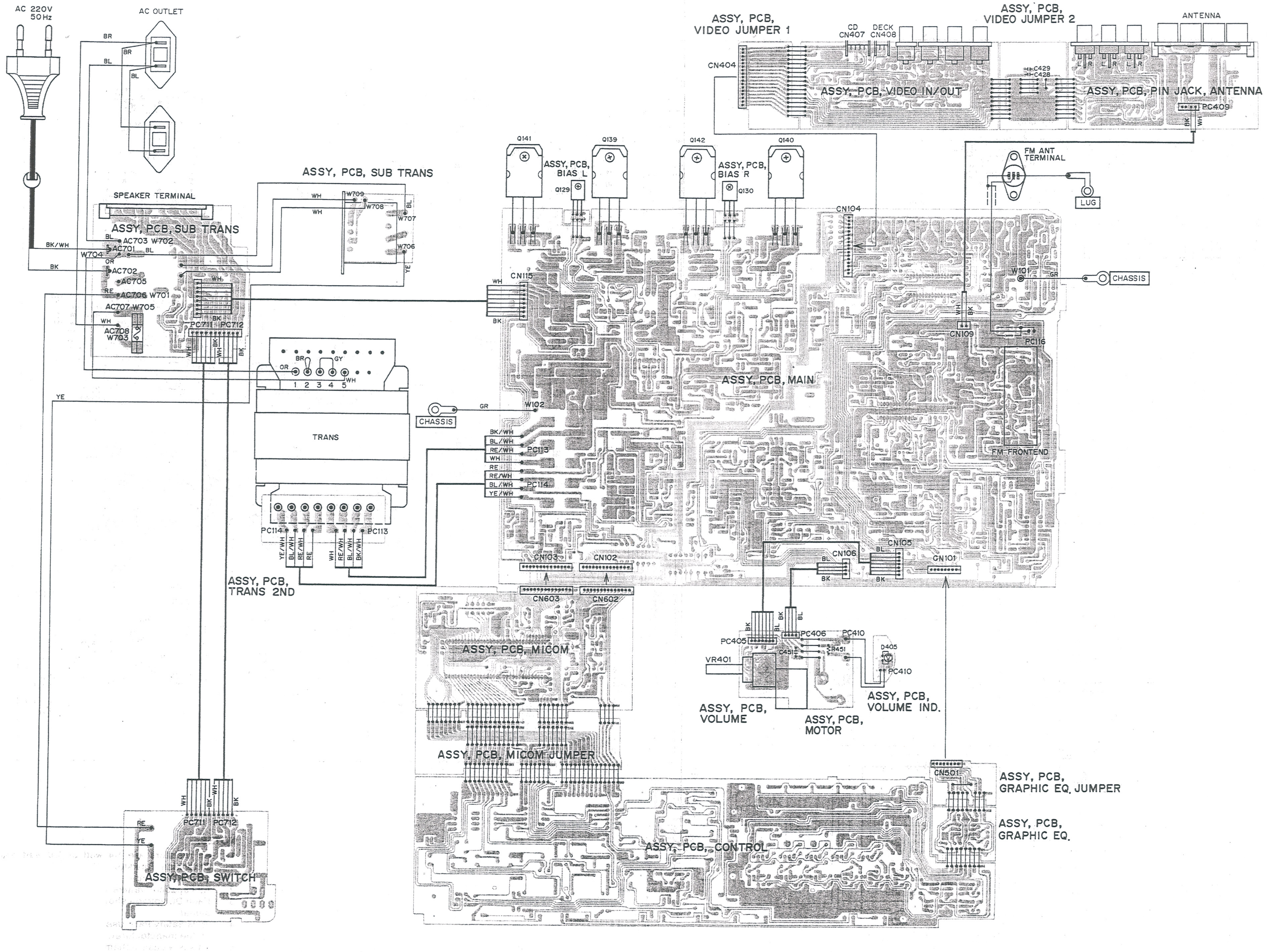
SCHEMATIC DIAGRAM (RF MAIN P.C.BOARD Section)


ASSY. PCB. MAIN
FM FRONT END
IC104 μPC4570C
IC105 LC7821
IC101 LA1266
IC102 LA3401
IC103 LM7001
IC106 LA6458D
IC107 TC9215P
IC108 LB1641
IC111 NJM78L15A
IC112 NJM79L15A
IC113 NJM78M12FA
PHONO
CD
AUX
R/O1
P/B1
R/O2
P/B2
FMTSQ
TO PC409
ASSY. PCB. BIAS L
ASSY. PCB. BIAS R
ASSY. PCB. SUB TRANS
RELAY
ASSY. PCB VOLUME
ASSY. PCB MOTOR
ASSY. PCB VOLUME IND
SPEAKER TERMINAL
ASSY. PCB. SUB TRANS. EUR
AC230V 50HZ
AC OUT LET
POWER TRANS
115V
230V
ASSY. PCB. TRANS
ASSY. PCB VIDEO JUMPER 1
ASSY. PCB VIDEO IN/OUT
ASSY. PCB VIDEO JUMPER 2
ASSY. PCB PINJACK/ANT
ASSY. PCB GRAPHIC EQ JUMPER
ASSY. PCB GRAPHIC EQUALIZER
ASSY. PCB. MICOM
ASSY. PCB MICOM JUMPER
ASSY. PCB. CONTROL
HEADPHONE
SPEAKER SW
POWER SW
ASSY. PCB. SWITCH

NOTES:

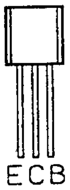
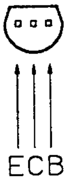
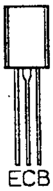
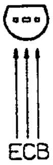
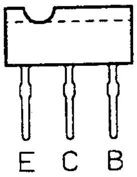
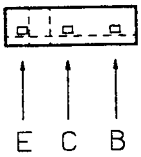
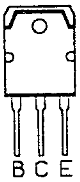
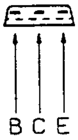
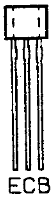
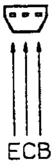
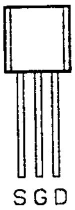
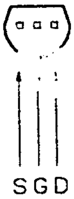
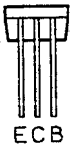
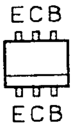
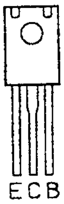
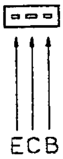
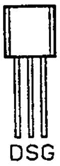
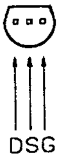
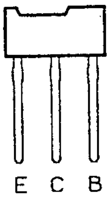
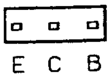
1. All resistors are 1/4 watt or 1/6 watt 5% unless marked. Otherwise Resistor values are in ohms (K=1000 ohms, M=1000k ohms).
2. All capacitor values are in microfarads. (P=picofarads).
3. Each DC voltage shows the nominal values in volts no input signal.
4. ⚠ is Safety Part. Use only replacement parts recommended by the manufacturer.
5. This is a basic schematic diagram.

POINT TO POINT WIRING DIAGRAM



AC 220V 50Hz
AC OUTLET
BR
BL
SPEAKER TERMINAL
ASSY, PCB, SUB TRANS
AC703 W702
AC701
W704
BK/WH
BK
OR
AC702
AC705
RE
AC706 W701
AC707 W705
WH
AC708 W703
PC711 PC712
WH
YE
W709
W708
W707
W706
TRANS
1 2 3 4 5
GY
PC114
PC113
ASSY, PCB, TRANS 2ND
YE/WH
BL/WH
RE/WH
CHASSIS
GR
W102
BK/WH
BL/WH
RE/WH
PC113
PC114
Q141
Q139
Q142
Q140
ASSY, PCB, BIAS L
Q129
ASSY, PCB, BIAS R
Q130
CN115
CN104
ASSY, PCB, MAIN
W101
CN109
PC116
FM FRONTEND
FM ANT TERMINAL
LUG
CN103
CN102
CN106
CN105
CN101
ASSY, PCB, VIDEO JUMPER 1
CN404
CD CN407
DECK CN408
ASSY, PCB, VIDEO IN/OUT
C429
C428
ASSY, PCB, VIDEO JUMPER 2
ANTENNA
ASSY, PCB, PIN JACK, ANTENNA
PC409
CN603
CN602
ASSY, PCB, MICOM
ASSY, PCB, MICOM JUMPER
ASSY, PCB, CONTROL
PC405
PC406
PC410
C451
R451
D405
VR401
ASSY, PCB, VOLUME
ASSY, PCB, MOTOR
ASSY, PCB, VOLUME IND.
CN501
ASSY, PCB, GRAPHIC EQ. JUMPER
ASSY, PCB, GRAPHIC EQ.
ASSY, PCB, SWITCH

IC & TRANSISTOR LEAD IDENTIFICATION

TRANSISTOR	FRONT VIEW	BOTTOM VIEW	TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SA1246 2SC2274K 2SC3792 2SD734			2SA1208 2SC2910		
2SC2021			2SA1694 2SC4467		
2SA1348 2SA608 2SC2839 2SC3330 2SC3402 2SC536 2SD1012			2SK246		
2SC3066			2SA1507 2SC3902 2SD1682		
2SK583			2SC4038		

TERMINAL NAME

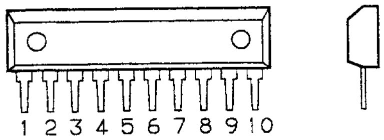
B → BASE	S → SOURCE
C → COLLECTOR	G → GATE
E → EMITTER	D → DRAIN

1 / WM570703
HL05D105 / SERVICE MANUAL / 0717821

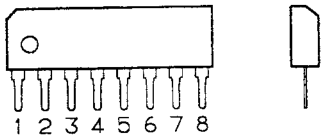
SANYO
FISHER

IC & TRANSISTOR LEAD IDENTIFICATION (Continued)

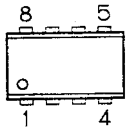
LB1641 FRONT/SIDE VIEWS


1 2 3 4 5 6 7 8 9 10

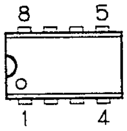
LA7016 FRONT/SIDE VIEWS



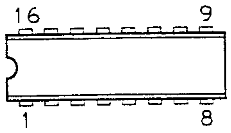
LA6458D TOP VIEW
LA6458DS TOP VIEW



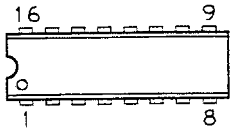
UPC4570C TOP VIEW



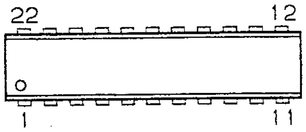
TC9215P TOP VIEW



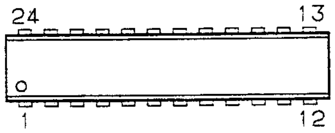
LM7001 TOP VIEW



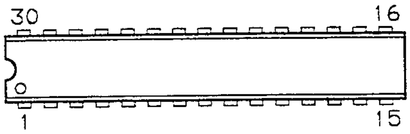
LA3401 TOP VIEW



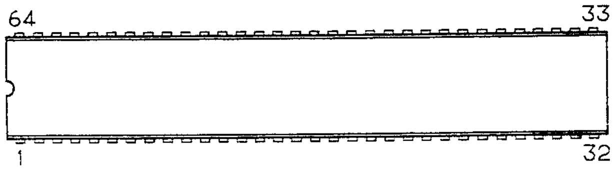
LA1266 TOP VIEW



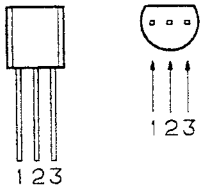
LC7821 TOP VIEW



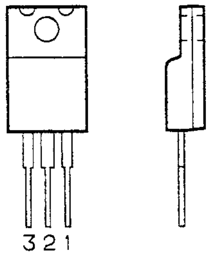
TMP47C1270N-V205(BZ) TOP VIEW



NJM78L15A TOP/SIDE VIEWS
NJM79L15A TOP/SIDE VIEWS



NJM78M12FA TOP/SIDE VIEWS



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